CHAPTER 5

Financial performance and inpatient payment issues for PPS hospitals

RECOMMENDATIONS

5A The inpatient PPS operating update of market basket minus 0.55 percent set in law for fiscal year 2002 will provide a reasonable level of payments.

***YES: 14 • NO: 0 • NOT VOTING: 0 • ABSENT: 2**

5B In collecting sample patient-level data, HCFA should seek to balance the goals of minimizing payment errors and furthering understanding of the effects of coding on case-mix change.

YES: 14 • NO: 0 • NOT VOTING: 0 • ABSENT: 2

5C Although the Benefits Improvement and Protection Act of 2000 improved the equity of the hospital disproportionate share adjustment, Congress still needs to reform this adjustment by:

- including the costs of all poor patients in calculating low-income shares used to distribute disproportionate share payments, and
- using the same formula to distribute payments to all hospitals covered by prospective payment.

YES: 12 • NO: 0 • NOT VOTING: 0 • ABSENT: 4

5D The Congress should protect urban hospitals from the adverse effect of nearby hospitals being reclassified to areas with higher wage indexes by computing each area's wage index as if none of the hospitals located in the area had been reassigned.

YES: 11 • NO: 0 • NOT VOTING: 1 • ABSENT: 4

***COMMISSIONERS' VOTING RESULTS**

CHAPTER 5

Financial performance and inpatient payment issues for PPS hospitals

In this chapter

- Overview of the payment system and policy changes
- Hospital financial performance
- Updating operating and capital payments
- Improving disproportionate share payment distribution methods
- Improving the equity of geographic reclassification for urban hospitals

Hospitals' financial status deteriorated significantly in 1998 and 1999, due to a combination of Medicare payment cutbacks and falling payments from private payers. The Medicare margin for inpatient services declined to 12.0 percent from an all-time high of 16.9 percent, and the Medicare margins for hospitals' outpatient departments, rehabilitation and psychiatric units, home health agencies, and skilled nursing facilities also dropped during this period. There are signs of substantial improvement in fiscal 2000, however; the hospital total margin rose to a seasonally adjusted 5.1 percent for the first two quarters of the year from a 1999 low of 2.8 percent. Most of this upturn appears attributable to hospitals negotiating more favorable payment terms with private insurers and to one-time losses in 1999 resulting from divesting money-losing lines of business. We conclude that there is no compelling reason to change the current law payment update for fiscal year 2002. Although the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) implemented a welcome increase in Medicare disproportionate share payments for rural hospitals, we stress that further reform of this payment adjustment is needed. Finally, we recommend a change in the rules governing geographic reclassification to improve its equity among urban areas.

Overview of the payment system and policy changes

Under the inpatient prospective payment system (PPS), hospitals receive prospectively determined operating and capital payments for each Medicare discharge.[1] Operating payments totaled $66 billion in 2000. They are intended to cover all costs hospitals incur in furnishing acute inpatient services for Medicare beneficiaries, except capital costs. Capital payments, which account for another $6 billion, cover building and equipment costs (principally interest and depreciation) allocated to Medicare's inpatient services. Hospitals also receive $6 billion in beneficiary copayments for inpatient services covered by the PPS and $2 billion in payments for graduate medical education (GME) for physicians and other health professionals (Committee on Ways and Means 2000).

Operating and capital payment policies

Hospitals' operating and capital payments for inpatient care under the PPS are determined in similar ways. Each payment system has three main components:

- the per-case base payment rate,
- a set of case weights, and
- special adjustments.

The base payment rate reflects the average costliness of Medicare cases nationwide, adjusted for the relative level of input prices in hospital market areas. The labor-related portion of the base operating payment rate is adjusted by a wage index that reflects the relative level of hospital workers' wages in each metropolitan or statewide rural area.

A similar index, called the geographic adjustment factor, is used to adjust the base capital payment rate.[2] Medicare's capital PPS has been phased in from 1992 to 2001. All hospitals are now paid on the basis of national prospective rates, and in fiscal year 2002 other special provisions (such as hold-harmless payments) in place during the transition will no longer be in effect.

The second component of PPS payment is a weight that accounts for the relative costliness of each case compared with the national average Medicare case. A separate weight is defined for each of 499 diagnosis related groups (DRGs), and the same DRG definitions and weights are used for both operating and capital payments. The product of a hospital's base payment rate and the relative weight for the DRG to which a patient is assigned is the hospital's DRG payment rate for a case. Consequently, a facility's DRG operating and capital payments under the PPS automatically reflect its mix of Medicare patients among DRGs, as measured by the average weight of the DRGs used to pay for their care. This average weight is the facility's PPS case-mix index (CMI).

The third PPS component consists of additional amounts that may be paid for unusual cases or to hospitals with certain characteristics. These factors are intended to account for differences in the costs of treating patients that are beyond hospitals' control or to accomplish broader policy objectives. Extremely costly cases can qualify for outlier payments, which are added to the DRG payment rate. An indirect medical education (IME) adjustment accounts for the higher patient care costs of teaching facilities, and hospitals that treat a disproportionate share of low-income patients receive the disproportionate share (DSH) adjustment. Finally, special payment provisions apply to rural hospitals designated as sole community providers, referral centers, or small Medicare-dependent hospitals.[3]

Hospital financial performance

The hospital sector is the single largest category of health spending and Medicare is the single largest purchaser of hospital services. The financial performance of the hospital industry is important for Medicare to ensure access to high-quality care for Medicare beneficiaries. The financial status of the industry depends on the volume of care provided, the per unit costs of providing that care, and the payments that private and public purchasers agree to make.

Hospitals were under financial pressure for most of the 1990s, first from public and later from private purchasers. As a result, hospitals have taken successful action to constrain cost growth, which initially improved financial performance. They also expanded into complementary lines of service by adding physician practices, health insurance subsidiaries, home health agencies, and skilled nursing facilities. In recent years, however, pressure has developed from the public and private sectors simultaneously, cost growth has begun to rise, and the expanded lines of service have produced unanticipated losses. These trends led to significant deterioration in hospital financial performance in 1998 and 1999. Signs of substantial improvement emerged in 2000, however, apparently led by payment changes in the private sector.

This section begins by reviewing hospital financial performance under Medicare. It then broadens to address all payers for hospital care, operating and non-operating revenue, and hospital total margins.

1 For Medicare beneficiaries enrolled in Medicare+Choice, services covered by the inpatient PPS usually will be paid under terms negotiated between the hospital and health plan.

2 Hospitals in Alaska and Hawaii also receive cost-of-living adjustments for the nonlabor portion of the base operating rate and for the federal capital payment rate.

3 A sole community provider is designated by Medicare as the only provider of hospital care in a market area. A rural referral center is generally a large rural hospital designated by Medicare as serving patients referred by other hospitals or by physicians who are not members of its medical staff. A small rural Medicare-dependent hospital is located in a rural area, has 100 or fewer beds, is not classified as a sole community provider, and has at least 60 percent of inpatient days or discharges attributable to Medicare.

Changes resulting from recent legislation

The Balanced Budget Act of 1997 (BBA) included several provisions that affected inpatient payment to PPS hospitals, as well as payment for the other services they provide (including outpatient, skilled nursing, home health, rehabilitation, and psychiatric care). The Balanced Budget Refinement Act of 1999 (BBRA) and the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) slowed or reversed some of these changes, eliminating a significant portion of the savings resulting from the BBA.

Prior to the BBA, the update to PPS operating payments for fiscal year 1998 and beyond was equal to the forecasted increase in the PPS hospital market basket. However, since the inpatient PPS was introduced in 1984, the actual update has generally been below the market basket forecast. Action by the Secretary of Health and Human Services or the Congress led to updates averaging 2.1 percentage points below market basket from 1986 through 1996. The BBA continued this pattern by freezing rates in 1998, followed by updates of 1.9 and 1.8 percentage points below market basket in 1999 and 2000, respectively; 1.1 percent below market basket in 2001 and 2002; and equal to market basket thereafter. The BIPA increased the update relative to the BBA and the BBRA provisions for 2001 and 2002 and reduced it in 2003. It sets an update with an average value equal to the market basket in 2001, 0.55 percent below market basket in 2002 and 2003, and equal to the market basket thereafter.

The update for capital payments is established by the Secretary of Health and Human Services through regulation before the beginning of each fiscal year, rather than being set by statute.

The BBA sharply cut PPS capital payments for fiscal year 1998 to make these payments better reflect Medicare-allowable capital costs. The Health Care Financing Administration (HCFA) overestimated capital cost growth in the early 1990s, and therefore set high annual updates to capital payment rates. Because actual payments were held equal to 90 percent of estimated capital costs in fiscal years 1992-1995, however, the updated payment rates did not result in increased payments. When budget neutrality expired in 1996, actual payments increased to equal updated rates, resulting in a 22.6 percent increase in rates. In response to that change, the BBA permanently reduced capital payment rates by 15.7 percent and, for fiscal years 1998-2002, by an additional 2.1 percent. This largely reversed the increase caused by the end of budget neutrality.

Effective fiscal year 1999, the BBA defined certain cases as transfers and paid for them using a modified payment formula. The cases must be in 10 DRGs selected by the Secretary and be discharged to PPS-excluded hospitals or units, skilled nursing facilities or, in some cases, home health care. Hospitals transferring patients are paid an average per diem amount for the days before transfer (twice the per diem rate for the first day) up to the full DRG rate. The Secretary identified the applicable DRGs based on high volume and above-average use of post-acute care, and estimated that the provision would reduce PPS payments by 0.6 percent.

The BBA reduced indirect medical education (IME) payments to teaching hospitals. Before the BBA, payments were increased by 7.7 percent for each 10 percent increase in a hospital's ratio of residents to beds. The BBA reduced this to 7.0 percent in 1998, 6.5 percent in 1999, 6.0 percent in 2000, and 5.5 percent in 2001 and subsequent years. The BBRA slowed this reduction to 6.5 percent in 2000, 6.25 percent in 2001, and 5.5 percent in 2002 and subsequent years. The BIPA further liberalized the adjustment to an average of 6.5 percent in 2001, 6.5 percent in 2002, and 5.5 percent in 2003 and beyond.

The BBA cut DSH payments during fiscal years 1998–2002, with reductions implemented in one-percentage-point increments reaching 5 percent in 2002, but with no further reductions in 2003 and after. The BBRA froze the reduction at 3 percent in 2001 and changed it to 4 percent in 2002. The BIPA softened the reduction further to an average of 2 percent in 2001 and 3 percent in 2002; full DSH payments will be made in 2003 and beyond. In addition, the BBA required that HCFA recommend a new payment formula for the DSH adjustment, that the new formula treat all hospitals equally, and that the low-income share measure continue to reflect both Medicaid patients and Medicare patients eligible for Supplemental Security Income. Although due by August of 1998, HCFA has not yet issued its report recommending a new payment formula.

The BBRA made other changes to reduce disparity in graduate medical education (GME) payments. In addition, the Secretary was directed to collect the uncompensated care data needed to reform the distribution of DSH payments. The BIPA made changes to the process for reclassifying hospitals for the wage index and other changes to enhance payments for rural hospitals. The BIPA made further changes to reduce the variation in GME payments.

Before the BBA, Medicare reimbursed hospitals fully for Medicare beneficiaries' bad debts at PPS hospitals. The BBA reduced this reimbursement in three steps to 55 percent of bad debts in 2000. The BBRA left this schedule unchanged, but the BIPA increased the percentage reimbursed to 70 percent in 2001 and thereafter. ■

Financial performance under Medicare

Medicare accounts for about 36 percent of spending on hospital care; all private payers combined account for 42 percent. Our discussion of hospitals' Medicare financial performance begins with the trend in cost per case—a direct measure of the resources used in producing inpatient care—and the trend in length of stay, a key determinant of inpatient cost growth. This discussion leads to a comparison of the trends in cost per case, payment per case, the hospital market basket, and the payment update factor. We then describe the trend in inpatient margins to understand how changes in Medicare payment policies affect hospital financial performance. Finally, we have expanded our research to include a margin for hospitals' five largest lines of Medicare business, which provides a comprehensive understanding of the overall impact of Medicare payment policy on hospitals.

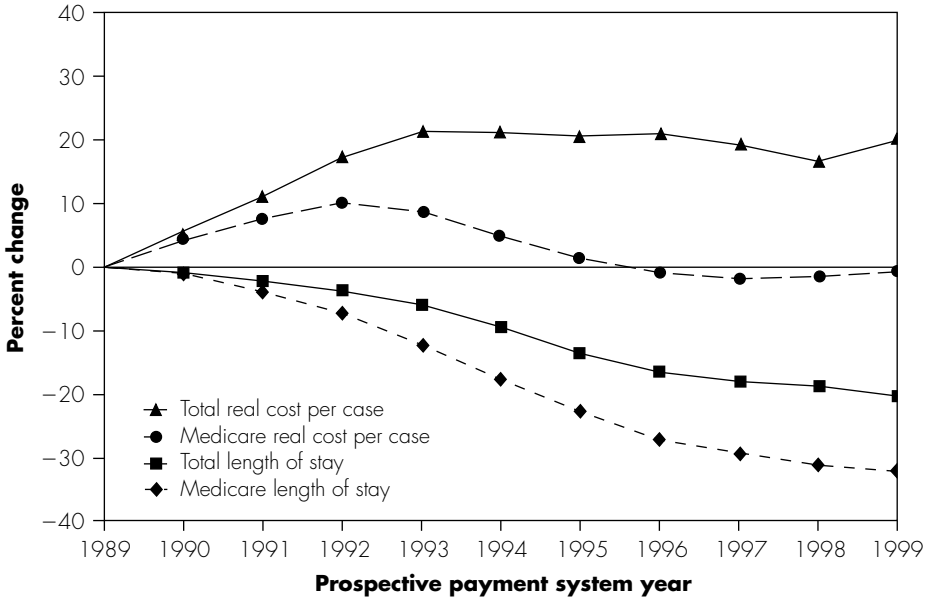
Length of stay and cost per case

We examined length of stay and cost per case for both Medicare beneficiaries and the patients of all payers. The Medicare Cost Report provides information on inpatient care for Medicare beneficiaries, while American Hospital Association (AHA) data give information on care to all patients, including expenses per adjusted admission, a measure encompassing both inpatient and outpatient care.

Trend during the 1990s Through the 1990s reductions in length of stay for Medicare's patients and those of other payers have been associated with slow growth or actual declines in real cost per case. We have calculated the real change in cost per case, which removes the effect of inflation over time. From 1992 through 1997, Medicare real cost per case declined every year, falling more than 3 percent in both 1994 and 1995 (Figure 5-1). In 1998 and 1999, it increased minimally—0.3 and 0.9 percent, respectively. In comparison, PPS length of stay declined from 1990 to 1997 at an average rate of 4.6 percent per year, and slowed to 2.4 percent in 1998 and 1.6 percent in 1999. Thus, large length-of-stay declines were associated with negative real cost growth through the mid-1990s, and smaller reductions in length of stay are associated with a slight increase in real cost per case in both 1998 and 1999. In aggregate, Medicare length of stay dropped more than 32 percent from 1990 through 1999, and Medicare real cost per case fell almost 1 percent.

FIGURE 5-1

Cumulative changes in Medicare and total length of stay and real cost per case, 1989–1999



Note: Total expenses per adjusted admission and total length of stay data (from the American Hospital Association) are based on community hospitals (which include some facilities excluded from prospective payment) and federal fiscal years. The Medicare inpatient costs per discharge and Medicare length of stay data (from HCFA) are based only on hospitals paid under prospective payment and on prospective payment system years. Real costs are calculated using the Gross Domestic Product implicit price deflator.

Additional data are shown in Appendix Table B-1.

Source: MedPAC analysis of American Hospital Association Annual Survey of Hospitals and Medicare Cost Report data from HCFA.

Changes over time in real cost per case for all payers are also closely associated with length-of-stay changes. Although all-payer length of stay dropped slightly in the early 1990s while real cost per case increased, as the decline in length of stay grew larger between 1993 and 1998, real cost per case fell. In the past decade, length of stay for all payers decreased 20 percent, while their real cost per case increased almost 20 percent. Thus, smaller length-of-stay declines for all payers compared to Medicare alone resulted in larger cost growth for all payers.

Trend by type of hospital The trends in Medicare length of stay differed among hospital types early in the decade, but have become more similar as the trend in length of stay stabilized. While both urban and rural hospitals had declines in Medicare length of stay every year throughout the 1990s, the reduction has been greater for urban hospitals, perhaps due to the greater availability of post-acute care providers in urban areas. In the mid-1990s, the drop in urban hospitals' length of stay exceeded the decline for rural hospitals by 2 percent a year; in 1999, the difference was only 0.3 percent.

The largest length-of-stay declines have been experienced by major teaching hospitals, and the smallest decreases by non-teaching hospitals.[4]

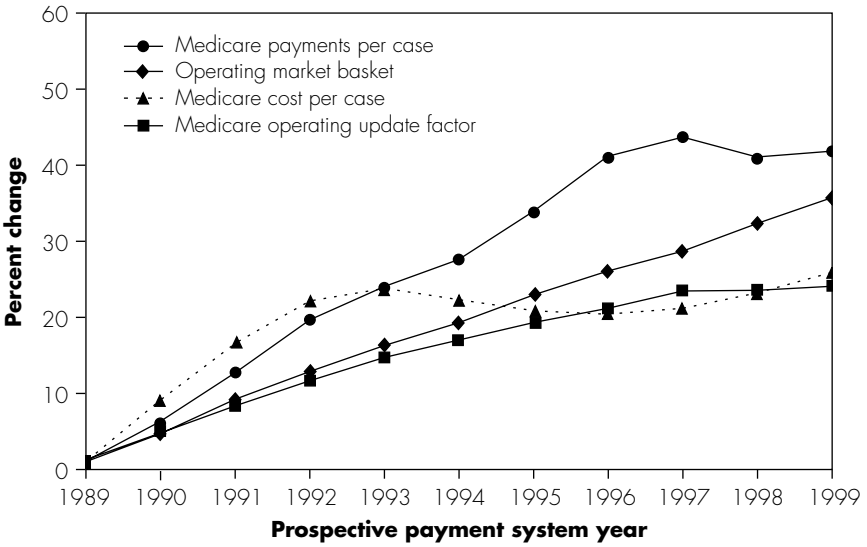
These differences in length-of-stay changes are reflected in the cost per case trend. Growth in cost per case declined through the 1990s for all hospitals, but rural hospitals have always lagged behind their urban counterparts. For the past six years, cost per case growth for rural hospitals has been 1 to 2 percentage points higher than that of urban hospitals. In 1999, rural hospital cost per case increased nearly 4 percent, while urban hospital cost per case increased about 2 percent—the highest rates since 1993 for both groups.

Payment growth for inpatient services is heavily influenced by Medicare payment rates. In fiscal years 1998 through 2000 (the first three years of the BBA), update factors for the PPS operating payment rates were the lowest since prospective payment began (0 percent, 0.5 percent and 1.1 percent, respectively). Focusing solely on the update factor to gauge the adequacy of Medicare payment, however, is misleading. Hospitals have been successful in containing cost growth during this period, mostly through length-of-stay reductions, and the smaller updates were a direct response to that trend. Since the drop in length of stay began in the early 1990s, the cumulative payment increase has been substantially larger than the cumulative increase in hospital costs.

With the lone exception of 1998, growth in Medicare payments per case has exceeded the update factor every year since prospective payment began (Figure 5-2). Based on Medicare Cost Report data, PPS payments per case increased by a cumulative 42 percent between 1990 and 1999; the cumulative payment updates during this period were 24 percent, and the market basket increased a cumulative 36 percent. Much of the difference between payments per case and the update factor reflects a rise in the Medicare case-mix index CMI in the late 1980s through the mid-1990s.[5] However, the CMI fell in both 1998 and 1999, which helped close the gap between growth in payments per case and the update factor. In 1998, payments per case fell by 2.1 percent (relative to an update factor of 0 percent), then increased by 0.7 percent in 1999 (relative to an update factor of 0.5 percent). Low or negative growth in payment per case is largely a result of the BBA but also results from reductions in the CMI, possibly linked to hospital concerns about government "fraud and abuse" investigations into the DRG coding of cases.

FIGURE 5-2

Cumulative changes in Medicare hospital inpatient payments per case and costs per case, and operating update factor, 1989–1999



Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. The operating update factor applies to operating payments, which account for appoximately 92 percent of Medicare payments. Capital payments make up the remaining 8 percent.

Additional data are shown in Appendix Table B-1.

Source: MedPAC analysis of Medicare Cost Report data.

Medicare inpatient margin

The Medicare inpatient margin is an important measure of the adequacy of Medicare payments to hospitals. This margin compares the payments hospitals receive from Medicare for inpatient services with their Medicare-allowable costs for these services, such that trends in both payments and costs will affect the value.[6]

Trend during the 1990s The PPS inpatient margin was negative in the early 1990s, reaching a low of −2.4 percent in 1991, due primarily to cost increases that

4 Major teaching hospitals are defined by a ratio of interns and residents to beds of 0.25 or greater, while other teaching hospitals have a ratio less than 0.25.

5 The CMI is the average payment weight of the hospital's cases by DRG; an increase in the CMI automatically raises payments by the same proportion.

6 The inpatient margin is calculated (in percentage terms) as the difference between inpatient payments and Medicare-allowable costs (as derived from costs reported on the cost report each hospital submits to HCFA) divided by inpatient payments. The same general approach is used for the other Medicare margins discussed later in the chapter.

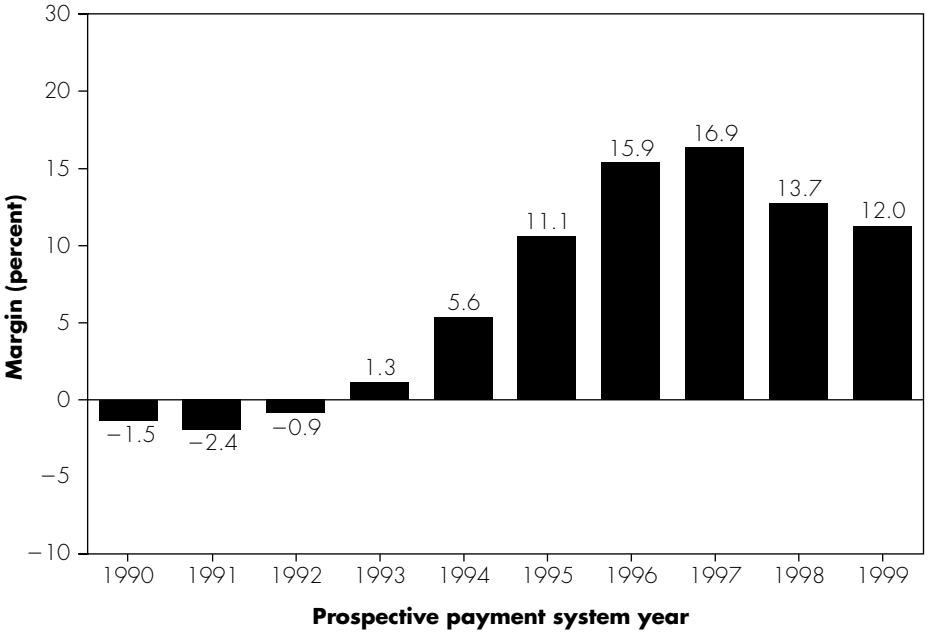
far exceeded the payment updates. Hospital cost containment from the mid- to late 1990s increased the margin, which reached an all-time high of 16.9 percent in 1997 (Figure 5-3). In 1998 and 1999, the inpatient margin fell because of a combination of BBA provisions, a return to positive cost growth for hospitals, and hospital concerns with coding-related "fraud and abuse" enforcement by the Inspector General. Although the BBA went into effect mostly in 1998, certain policies (such as the capital update) began to affect hospitals in 1997 but did not slow the growth in inpatient margin that year.[7] The inpatient margin fell to 13.7 percent in 1998 and to 12.0 percent in 1999. The 5 percentage point drop from 1997 to 1999 still leaves this margin higher than at any time prior to 1996.

The major impact of the BBA has already been felt by hospitals, and the BBRA and the BIPA have eliminated many of the further BBA reductions that had been scheduled for 2000 through 2002. As such, the combined effect of the BBA, the BBRA and the BIPA should not have much of an additional effect on inpatient payment in fiscal year 2002, but if hospital costs continue to increase at rates similar to 1998 and 1999, the inpatient margin could continue to fall.

Despite relatively high inpatient margins in recent years, not all hospitals profit from Medicare inpatient care. As PPS inpatient margins rose in the early 1990s, the number of hospitals with negative margins fell in each year from 1991 through 1996. But even in 1996 and 1997, when inpatient margins were at their highest, nearly one in four hospitals lost money on Medicare inpatient services (Figure 5-4). The drop in the inpatient margin in 1998 and 1999 was accompanied by increases in the proportion of hospitals with negative margins, which reached 34 percent in 1999. The steep climb in the number of hospitals with negative inpatient margins does not bode well for some hospitals, as inpatient payments generally offset hospital losses on other lines of Medicare service.

FIGURE 5-3

Medicare hospital inpatient margin excluding graduate medical education, 1990–1999



Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Data for 1999 have been weighted by teaching status to improve predictive accuracy. Margins for all years are based on Medicare-allowed costs.

Additional data are shown in Appendix Table B-4.

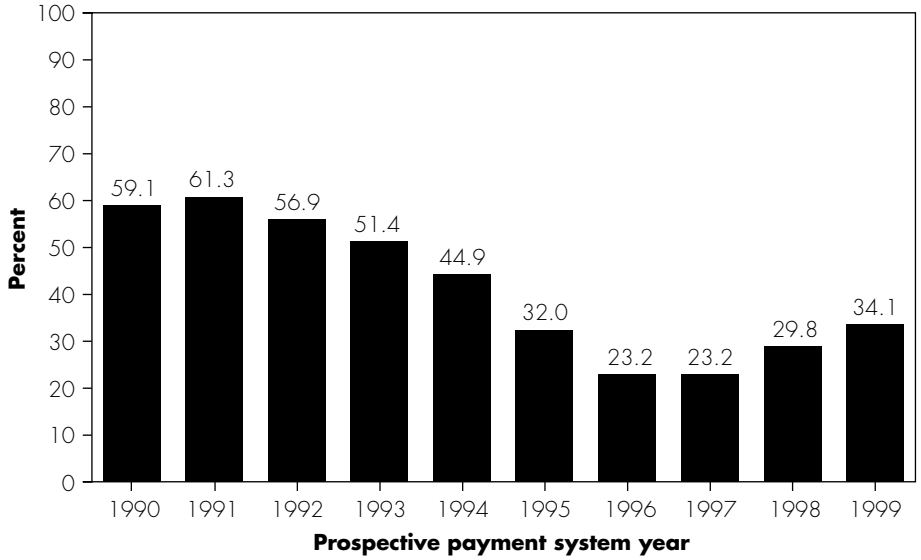
Source: MedPAC analysis of Medicare Cost Report data from HCFA.

Trend by type of hospital The decline in inpatient margins in 1998 and 1999 varied by teaching status and between urban and rural hospitals. Medicare payments to hospitals are adjusted for a variety of factors that impact these groups differentially, including degree of teaching intensity, location in a large urban area relative to a smaller urban or rural area, and treatment of low-income patients. The trends by teaching status and urban versus rural hospitals are not unrelated; major teaching hospitals are located predominantly in large urban areas, while rural areas have predominantly non-teaching hospitals. Teaching hospitals—those employing residents—receive additional Medicare payments through the IME adjustment in an effort to compensate for their higher costs. Teaching hospitals tend to have much higher inpatient margins than non-teaching hospitals, due primarily to these teaching-related payments and to DSH payments (Figure 5-5). Although cuts in the BBA applied more to teaching hospitals, major teaching hospitals' inpatient margins in 1999 remained essentially unchanged, while the inpatient margins of other teaching and non-teaching hospitals continued to decline from their 1997 highs. One reason for this disparity is that major teaching hospitals had lower growth in cost per case than other hospitals in 1998 and 1999.

7 The BBA reduced capital rates by 15.7 percent for discharges occurring on or after October 1, 1997, which allowed some of the impact of this provision to appear on 1997 cost reports.

FIGURE 5-4

Percent of hospitals with negative Medicare inpatient margins excluding graduate medical education, 1990–1999



Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Margins for all years are based on Medicare-allowed costs.

Additional data for 1999 are shown in Appendix Table B-5.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

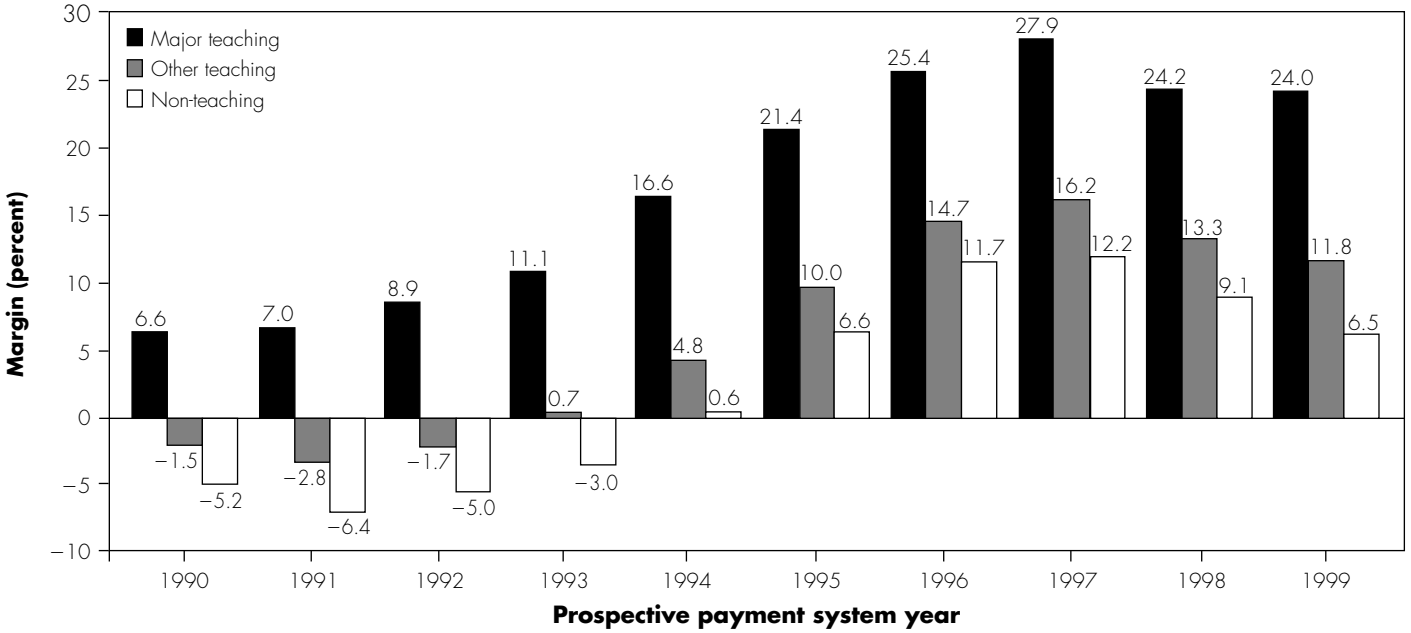
Rural hospitals have consistently had lower Medicare inpatient margins than urban hospitals due to lower IME and DSH payments as well as higher cost growth. From 1992 through 1999, the gap between urban and rural hospital margins widened (Figure 5-6). In 1997, before the BBA, rural hospital inpatient margins fell slightly due to high cost per case growth, while urban margins continued to increase. Rural hospital margins also fell faster than those of urban hospitals after the BBA in 1998, but again this was due to higher cost growth. In 1999, the urban margin fell to 13.2 percent, after reaching an all-time high of over 18 percent in 1997, while the margin for rural hospitals fell to 3.4 percent after peaking at 10 percent in 1996.

Overall Medicare margin

Although the inpatient margin is a useful tool for analyzing Medicare payment policy, it does not provide a comprehensive picture of Medicare's impact on hospitals because virtually all hospitals provide other services to

FIGURE 5-5

Medicare hospital inpatient margin excluding graduate medical education, by teaching status, 1990–1999



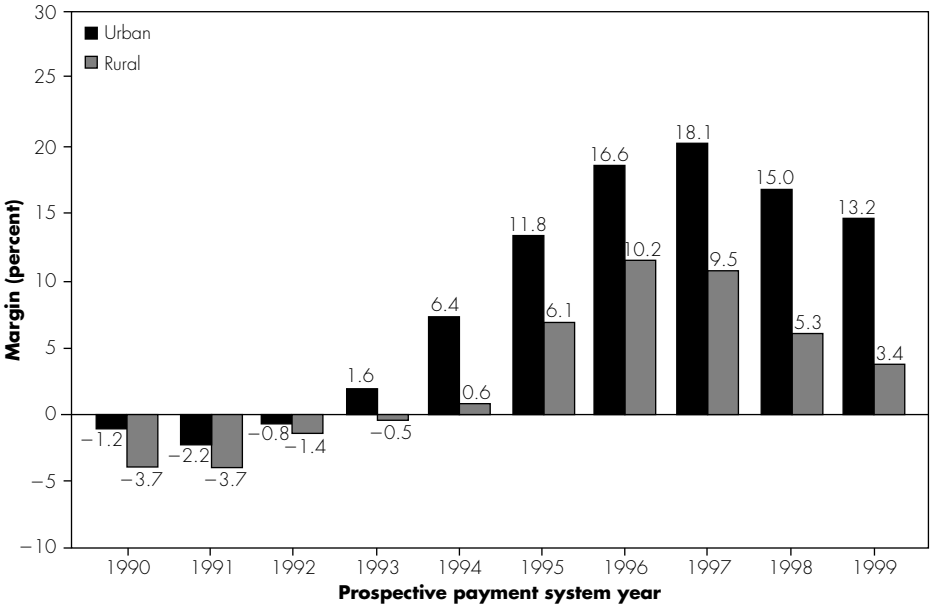
Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Margins for all years are based on Medicare-allowed costs.

Additional data are shown in Appendix Table B-4.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

FIGURE 5-6

Medicare hospital inpatient margin excluding graduate medical education, by urban and rural location, 1990–1999



Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Margins for all years are based on Medicare-allowed costs. Additional data are shown in Appendix Table B-4.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

Medicare beneficiaries. MedPAC created the overall Medicare margin in conjunction with HCFA to provide a comprehensive analysis of hospital Medicare payments and costs for the five largest lines of Medicare service to hospitals paid under the inpatient PPS. The Medicare margin includes payments and costs for PPS inpatient, outpatient, home health, skilled nursing, and PPS-exempt (psychiatric and rehabilitation) services, as well as GME and Medicare bad debt payments, incorporating more than 90 percent of Medicare payments.[8]

The overall Medicare margin allows policymakers to compare Medicare margins among service lines, and to gauge the contributions of each component to the total. Increases in volume and recent policy changes, such as the introduction of new payment systems for outpatient and post-acute care, have increased the policy relevance of these other Medicare services that hospitals provide.

Until recently, many services under Medicare were paid on a cost basis, but Medicare payments often did not cover costs due to discounts or limits on payment. For instance, Medicare paid 94.2 percent of operating costs and 90 percent of capital costs for outpatient services prior to the outpatient PPS. In preparing their Medicare Cost Reports, providers have had a strong incentive to allocate overhead and ancillary costs disproportionately to those services (primarily outpatient, home health, and skilled nursing) for which payments were made on a cost basis, rather than by prospective payment.

A 1993 Prospective Payment Assessment Commission (ProPAC) study found that outpatient costs were overstated by at least 8 percent, and a 1994 HCFA-sponsored study suggested that these costs may have been overstated by more than 15 percent (ProPAC 1993, CHPS Consulting 1994).[9] The incentive to allocate overhead and ancillary costs to cost-reimbursed post-acute services is as strong as for outpatient services. Although no information is available on the extent of the reporting bias, negative margins for these services are due at least somewhat to this over-allocation of costs by providers, and the disparity in margin between inpatient and other services is not nearly as great as the nominal values would suggest.

Trend during the 1990s The margins for each component and the overall Medicare margin have declined from 1996 through 1999 (Table 5-1). The overall Medicare margin fell from an all-time high of 10.4 percent in 1997 to 5.6 percent in 1999. Each component is shown excluding graduate medical education, while the total margin line includes GME (which reduces the overall margin by approximately 0.5 percent a year).[10] Inpatient payments are the key determinant of the overall margin; despite negative margins for most components, the inpatient margin keeps the overall margin well above zero. In 1999, the overall Medicare margin dropped moderately, but the real movement in this margin occurred from

8 In future iterations of this margin, HCFA and MedPAC hope to include other elements of the Medicare program that affect hospitals, including payments and costs for care in comprehensive outpatient rehabilitation facilities, fee-based outpatient services (such as durable medical equipment and laboratory), and hospice and ambulance services.

9 The final report of HCFA's study contains a series of DRG-specific values, rather than an aggregate national figure for outpatient cost overstatement. However, the study's principal investigator has estimated that the national figure is between 15 and 20 percent.

10 The inclusion of GME tends to drive down the measured margin because GME costs are generally higher than payments. GME affects inpatient services to the greatest extent and all other services to a lesser extent. The relationship of GME payments and costs did not change materially under the BBA.

TABLE 5-1

Overall hospital Medicare margin, 1996–1999

Component	1996	1997	1998	1999	Component cost share 1999
Inpatient	15.9%	16.9%	13.7%	12.0%	71.2%
Outpatient	−7.8	−6.7	−16.7	−15.4	17.4
Skilled nursing facility	−11.8	−14.5	−25.9	−51.4	2.8
Home health agency	−4.5	−4.5	−24.8	−13.9	4.0
PPS-exempt units	6.2	4.4	0.7	4.0	4.6
Total	9.9	10.4	6.0	5.6	100.0

Note: PPS (prospective payment system). PPS-exempt units include inpatient psychiatric and rehabilitation services. Data are based on Medicare-allowable costs. Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Data for 1999 have been weighted by teaching status in order to improve predictive accuracy. Components exclude graduate medical education costs and payments; total includes them.

Additional data are found in Appendix Tables B-4, B-6, B-7, B-8, B-9, and B-10.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

1997 to 1998, when it fell more than 4 points. The 1998 reduction is evidence that the BBA effectively reduced Medicare payments to hospitals, but also is due to a return to positive nominal cost growth.

The BBA caused large reductions in each component of the overall Medicare margin in 1998, but the margins for all components except hospital-based skilled nursing facilities (SNFs) leveled out in 1999. Home health margins recovered primarily because hospitals closed their unprofitable agencies, but the improved PPS-exempt unit and outpatient margins in 1999 are probably overstated, due to differences in the sample of hospital cost reports available in 1998 and 1999. We believe that these component margin values may drop somewhat when complete data become available.

The hospital-based SNF margin fell substantially in 1998 and 1999, reaching −51 percent. HCFA predicted the impact of the SNF PPS on hospital-based units would be a 20 percent decrease in payments, which would reduce the pre-1997 SNF margin of −15 percent to −45 percent. Thus, the impact of prospective payment was slightly greater than projected by HCFA. However, the SNF margin in 1999, though severe, represents payment of 66 cents on the dollar, not 49 cents on the dollar,[11] and the SNF margin was negative before the PPS was implemented, despite cost-based reimbursement with certain limits. We believe a significant portion of the negative SNF margin reflects the over-allocation of hospital overhead costs to cost-reimbursed units.

Despite the fairly large drop in margin for most non-inpatient components of Medicare payments from 1996 through 1999 and the fact that all non-inpatient components (including GME) had very low or negative margins, the overall Medicare margin remained well above zero in 1998 and 1999. The positive overall margin results from the relative payment and cost shares of the margin components, which are dominated by inpatient services. In 1999, the PPS inpatient cost share was 71.2 percent, the outpatient cost share was 17.4 percent, and the other three components combined were less than 12 percent (Table 5-1).

The trend in component cost shares within the overall Medicare margin suggests a behavioral response to changes in Medicare payment policy. In the early to mid-1990s, the number of hospital-based home health and skilled nursing units increased substantially. Hospitals moved into these services to ensure a continuum of care to patients but also to receive multiple payments for the same beneficiary as they moved through this continuum. As Medicare payments for skilled nursing and home health services were constrained by provisions of the BBA, hospitals have moved away from providing these services and refocused on inpatient care. Consequently, the proportion of total costs for both home health and skilled nursing care was reduced by one-third or more between 1997 and 1999.

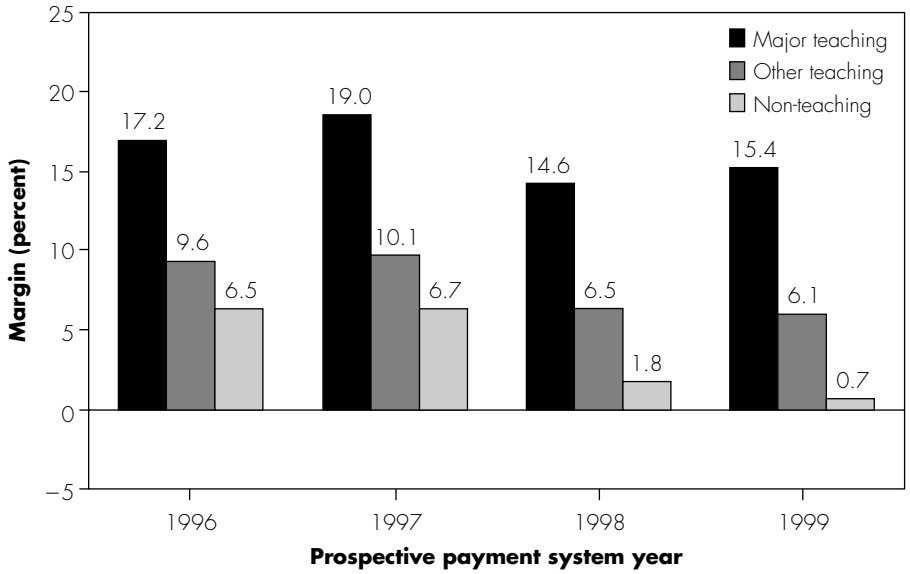
Trend by type of hospital Just as teaching hospitals have higher inpatient margins, they also have higher overall Medicare margins. Although the margins for outpatient, skilled nursing, home health and PPS-exempt services were similarly low for teaching and non-teaching hospitals, the overall Medicare margin for major teaching hospitals was nearly 15 points higher than that of non-teaching hospitals in 1999 (Figure 5-7). This is due almost entirely to high inpatient margins, linked to greater IME and DSH payments. Although the BBA had a proportionately greater impact on teaching hospitals' payments, their Medicare margins have remained high. In fact, the overall Medicare margin for major teaching hospitals actually increased nearly 1 percentage point from 1998 to 1999, accomplished through slower cost per case growth and reduced skilled nursing services.

Similar to the inpatient margin, rural hospitals have lower overall Medicare margins than urban hospitals, and the gap has widened in each of the years for which we have data (Figure 5-8). In 1998, when the BBA payment policies went into effect, the overall Medicare margin for rural hospitals fell 6 percentage points, to

11 Because the denominator of a margin is payments, not costs, reductions in payments have a proportionately larger impact on a margin than a direct ratio of payments to costs.

FIGURE 5-7

Overall hospital Medicare margin including graduate medical education, by teaching status, 1996–1999



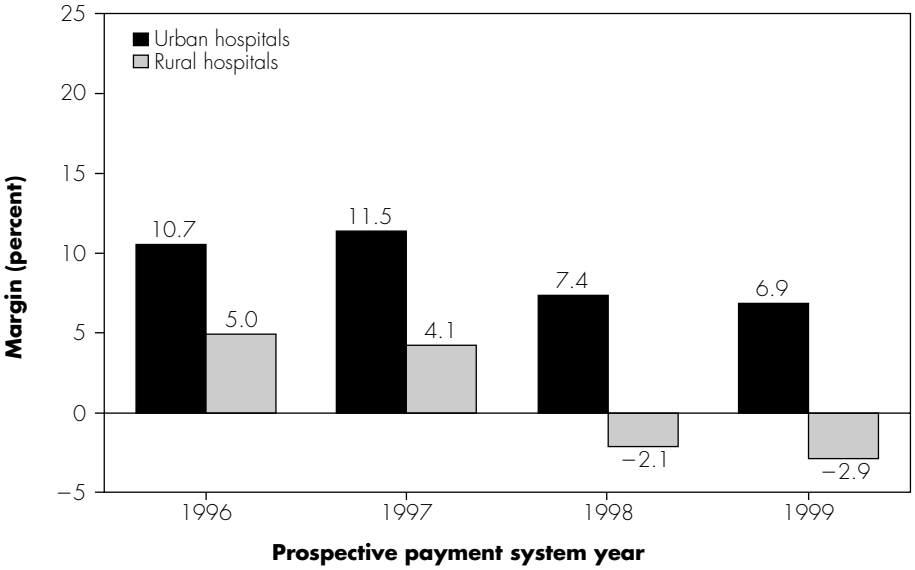
Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Margins for all years are based on Medicare-allowed costs.

Additional data are shown in Appendix Table B-10.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

FIGURE 5-8

Overall hospital Medicare margin including graduate medical education, by urban and rural location, 1996–1999



Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Margins for all years are based on Medicare-allowed costs.

Additional data are shown in Appendix Table B-10.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

−2.1 percent. In 1999, the overall margin fell again for both urban and rural hospitals, and the disparity between the two groups increased. As with the inpatient margin, the disparity in overall Medicare margin between urban and rural hospitals is due mostly to limited IME and DSH payments for rural hospitals, and to larger cost increases in rural areas.

The overall Medicare margin may continue to fall if length of stay continues to stabilize and hospital costs continue to increase. However, both the BBRA and the BIPA improved Medicare payments relative to the BBA reductions.

Under the BBA, the outpatient PPS was projected to increase the aggregate outpatient margin slightly after its implementation, and with the corridor and technology pass-through payments put in place under the BBRA, hospital losses from the outpatient PPS will be limited. A PPS for home health services has been implemented that could affect home health margins, but the interim payment system in place in 1998 already had a significant negative impact and the intent of the PPS is to have a distributive effect but not a net reduction in payments. Many hospitals have scaled back or closed their home health services in response to the interim payment system.

In an analysis based on the BBA and the BBRA payment policy, MedPAC predicted that Medicare inpatient margins would drop to 11.2 percent in 2002 (MedPAC 2000b). However, this analysis did not take into account increased payments in the BIPA relative to the BBA and the BBRA, such as a higher operating update factor and increased disproportionate share payments. Whether the inpatient surplus will be sufficient to offset continued losses in other service lines, with these policy changes and possible behavioral responses of hospitals, remains to be seen.

Financial performance encompassing other sources of revenue

MedPAC monitors the overall financial health of hospitals because we are concerned that they remain able to

provide high-quality care to Medicare beneficiaries and other patients. A significant decline in financial health could impair this ability and create problems of access.

Comparison of payers

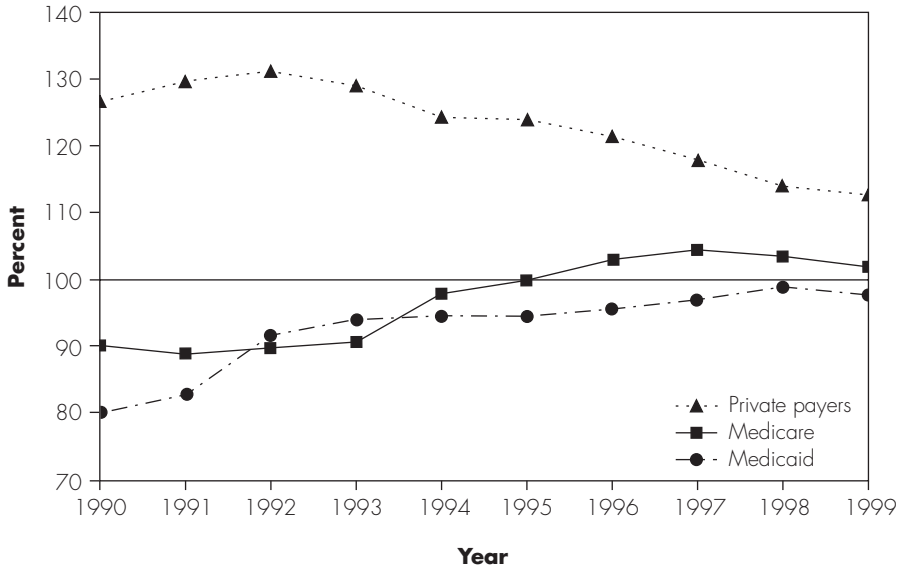
The adequacy of Medicare's payments can be compared with that of other payer groups, both public and private, by calculating each payer's payments as a percentage of the costs of treating its patient load. In 1998 and 1999, the payments of both Medicare and private payers fell relative to costs, but the drop in private payer payments contributed more than that of Medicare payments to hospitals' deteriorating financial performance.

Through the late 1980s and into the 1990s, hospital cost increases were far higher than Medicare's payment increases, such that Medicare's payment-to-cost ratio fell significantly, to 88 percent in 1991. Hospitals were able to recoup the lost revenue during this period by raising prices to private payers in what became known as "cost shifting." The private payer payment-to-cost ratio consequently rose to a peak of 131 percent in 1992 (Figure 5-9).

In the early 1990s, health maintenance organizations (HMOs) and other private payers began to demand lower prices. Hospitals responded by slowing their cost growth, but private-payer payments still fell sharply relative to costs, dropping to 118 percent in 1997. Meanwhile, Medicare's annual payment increases were not much different in the early 1990s than they had been in the 1980s. Steady payment growth coupled with hospitals' markedly lower cost increases resulted in the Medicare payment-to-cost ratio rising from its low of 88 percent to 104 percent in 1997.[12]

FIGURE 5-9

Medicare, Medicaid and private payer hospital payment-to-cost ratios, 1990–1999



Note: Payment-to-cost ratios cannot be used to compare payment levels because the mix of services and cost per unit of service vary across payers. They do, however, indicate the relative degree to which payments from each payer cover the costs of treating that payer's patients. Data are for community hospitals and reflect both inpatient and outpatient services. Imputed values were used for missing data (about 35 percent of observations). Most Medicare and Medicaid managed care patients are included in the private payers category. The costs allocated to Medicare and Medicaid include HCFA's allowed and non-allowed costs.

Additional data are shown in Appendix Table B-11.

Source: MedPAC analysis of data from the American Hospital Association Annual Survey of Hospitals.

In 1998, for the first time in the history of the Medicare program, both the Medicare and private payer payment-to-cost ratios fell, breaking the long-standing inverse relationship of cost shifting. This trend continued in 1999, as the Medicare and private payer payment-to-cost ratios both dropped, Medicare to 101 percent and private payers to 112 percent. These reductions reflect continued pressure on hospitals from both the public and private sectors.

Medicare and private payers' shares of hospital services are nearly equal. The decrease in payment-to-cost ratios for Medicare and private payers caused gains from private payers to fall 1.5 percentage points from 1997 to 1999, while gains from Medicare dropped 1 percent.[13] Thus, private payers contributed roughly 1.5 times as much as Medicare to the drop in total margin over this period. It must be kept in mind, however, that in the AHA data used for this analysis, most revenue from Medicare and Medicaid managed care is booked as private payer revenue. Medicare has no direct control over the level of payments that Medicare HMOs negotiate with hospitals, but shrinking payments made on behalf of Medicare beneficiaries enrolled in managed care has

12 Medicare's 1997 payment-to-cost ratio of 103.6 percent is equivalent to a margin of 3.5 percent. This margin differs from the 1997 overall Medicare margin, 10.4 percent, in three ways: (1) it encompasses all costs rather than Medicare-allowable costs, (2) it reflects all Medicare services hospitals provide, rather than the five largest services, and (3) it is based on a crude allocation of costs between Medicare and other payers, in contrast to the involved cost allocation process of the Medicare Cost Report.

13 Gains are measured as revenues from a payer minus the costs of treating its patients, divided by total (all-payer) expenses. This measure combines the effects of a payer's level of payments (relative to costs) and the share of hospitals' business its patients comprise.

likely contributed to the steep drop in private-payer payments relative to costs.

The effect of non-operating income

Hospitals derive their overall revenue from payments for patient care services, other operating revenue and non-operating revenue. Non-operating revenue, which typically comes from investment income and donations, has little or no associated expense and therefore serves to increase the hospital total margin. In recent years about 50 percent of the hospital total margin has come from non-operating revenue, but this relationship has varied substantially. It reached a low of 30 percent in 1994 through 1996 (when hospital total margins were their highest), but has risen steadily to about 55 percent in 1999, its highest level since 1991.

Non-operating revenue as a share of total revenue has varied less over time. The low point (1.5 percent) came in 1995, but it exceeded 2.5 percent each year from 1997 through 1999, the highest three-year period in the 20-year history of these data. Non-operating revenue reflects both realized and unrealized gains or losses from hospital investments, so this figure will include large gains in stock market investments even if these gains are not cashed out in a given year. Thus, the unusually large non-operating share from 1997 through 1999 is almost undoubtedly linked to the nation's booming stock market. Whether this source of revenue declined in 2000 as the stock market faded remains to be seen.

In 1999, the proportion of non-operating revenue was slightly higher for rural hospitals (2.6 percent) than for urban hospitals (2.5 percent). In prior years, however, urban hospitals had a marginally higher proportion. Rural advocates have suggested that rural hospitals receive less non-operating revenue and that this has had a negative impact on their total margins and abilities to invest in new plants and equipment. In relation to total revenue, however, the difference in non-operating revenue between urban and rural hospitals appears modest.

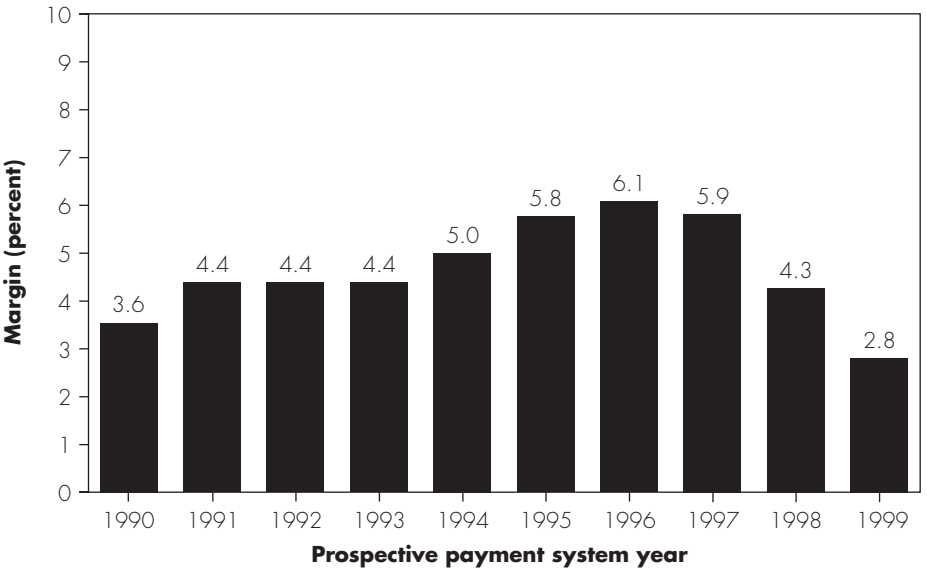
Hospital total margin

The hospital total margin is the most comprehensive measure of hospital financial performance, calculated as net income from all sources (including both operating and non-operating revenue) divided by total hospital revenues. Total margins have fallen substantially in recent years, due to a number of factors, including slower growth in Medicare payments, continued pressure from managed care and private payers, losses from alternate lines of service and hospital divestiture of these ventures, and a return in 1998 and 1999 to cost increases after an era of very low or even negative cost growth.

Trend during the 1990s Preliminary data suggest a 2.8 percent total margin in 1999, falling from approximately 6 percent in 1995 through 1997 (Figure 5-10). In these preceding years hospital margins had been relatively high—the total margin averaged 4.7 percent from 1990 through 1998. However, we believe that the 2.8 percent margin for 1999 is understated and will likely improve as hospitals with later reporting periods are included in the sample. This will tend to level out the total margin trend and will soften the large drop from 1998 to 1999.

The decline in hospital total margins in 1999 is partly due to hospitals accepting one-time losses by divesting money-losing ventures such as owning and operating physician practices, health insurance subsidiaries, home health agencies and skilled nursing facilities. In the early to mid-1990s, hospitals invested heavily in complementary services, but these ventures have often led to losses due to market pressures, increased competition, and changes in Medicare payment policy. By pruning such services, hospitals may take one-time losses against their bottom line in a given year but will improve their long-term financial performance. A major investment rating service found that much of the poor financial performance of hospitals in 1999 was related to such one-time write-offs, and is more optimistic about hospital performance in future years (Standard and Poors 2000).

FIGURE 5-10 **Hospital total margin, 1990–1999**

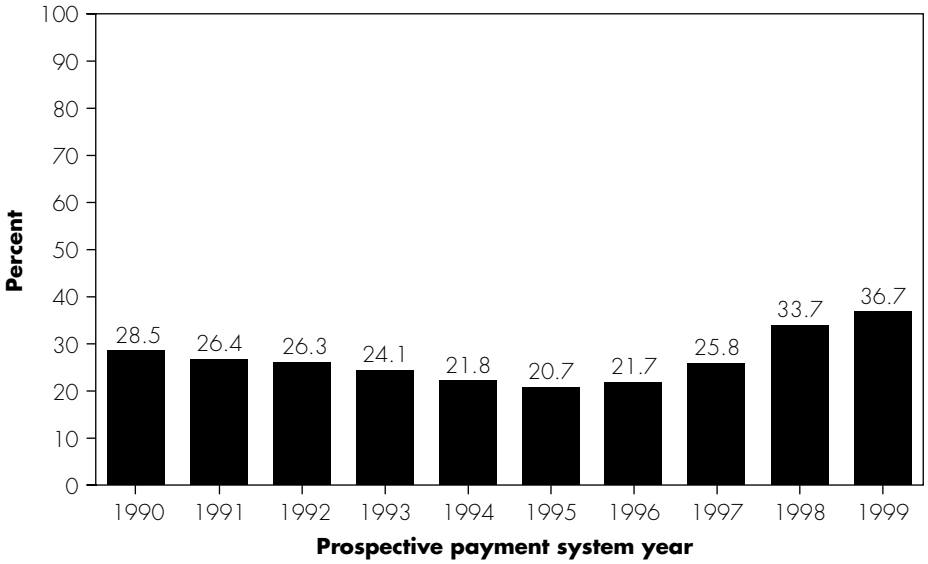


Note: 1999 data are preliminary, based on 50 percent of all hospitals covered by prospective payment. Additional data are shown in Appendix Table B-18.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

FIGURE 5-11

Percent of hospitals with negative total margins, 1990–1999



Note: 1999 data are preliminary, based on 50 percent of all hospitals covered by prospective payment.
Additional data for 1999 are shown in Appendix Table B-19.

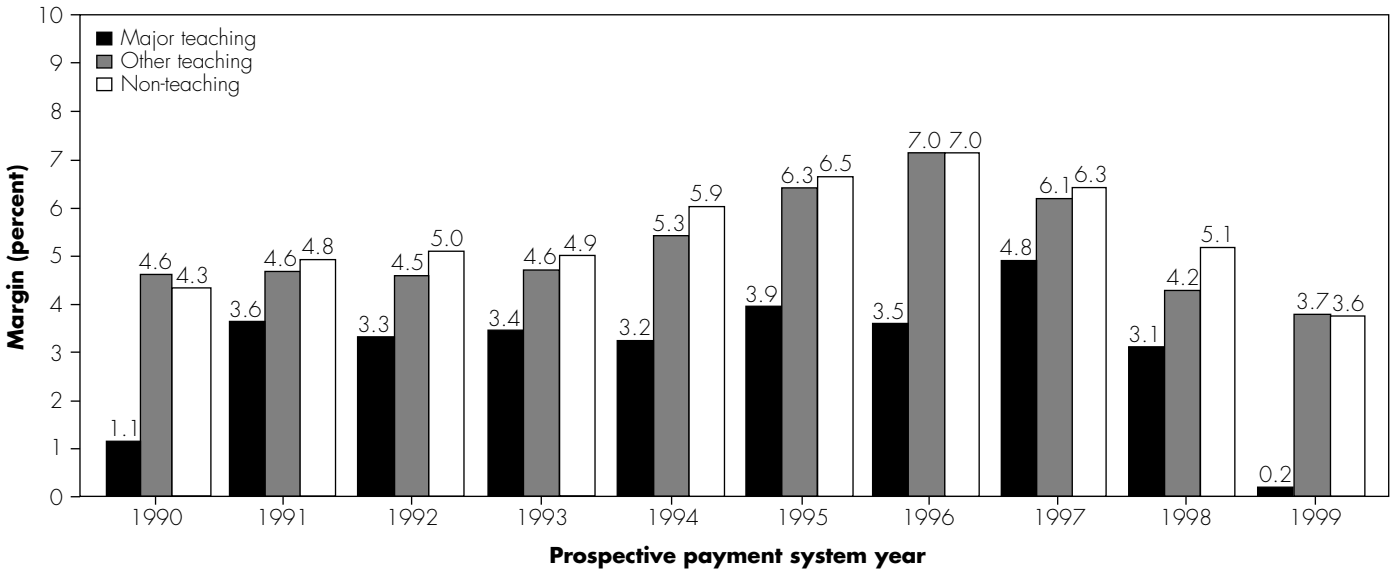
Source: MedPAC analysis of Medicare Cost Report data from HCFA.

The decline in total margins was accompanied by an increase in the proportion of hospitals with negative margins. These hospitals had higher expenses for all purposes than revenue from all sources. As total margins increased in the mid-1990s, the proportion with negative margins fell to a low of 21 percent in 1995, but increased sharply in 1998 and 1999, reaching nearly 37 percent (Figure 5-11). Compared to the era of low total margins in the early 1990s, the distribution of total margins is shifting. Since 1996, when the fewest hospitals had negative inpatient and total margins, the change in the proportion of hospitals with a negative total margin is more pronounced than the change in the proportion with a negative inpatient margin, which suggests greater pressure from the private sector in recent years.

Trend by type of hospital The decline in total margins affected all hospitals, but major teaching hospitals' margins fell the most, from 4.8 percent in 1997 to 0.2 percent in 1999 (Figure 5-12). This group's total margin has long been lower

FIGURE 5-12

Hospital total margin, by teaching status, 1990–1999

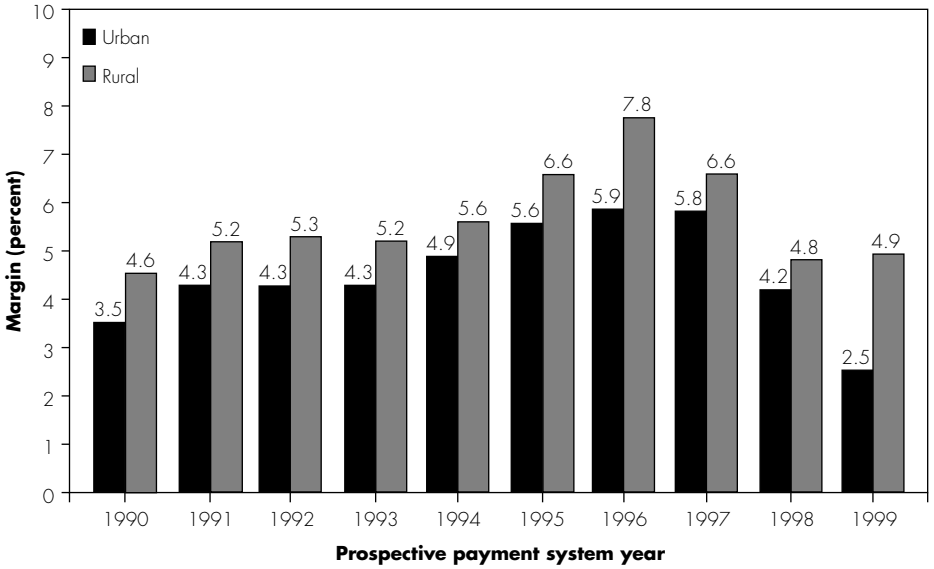


Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment.
Additional data are shown in Appendix Table B-18.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

FIGURE 5-13

Hospital total margin, by urban and rural location, 1990–1999



Note: Data for 1999 are preliminary, based on 50 percent of all hospitals covered by prospective payment. Additional data are shown in Appendix Table B-18.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

TABLE 5-2

Hospital total margin, 1998–2000

Year	Medicare Cost Report	National Hospital Indicators Survey
1998	4.3%	4.3%
1999	2.8	2.7
2000*		
Actual	NA	5.5
Seasonally adjusted	NA	5.1

Note: NA (not available). Data from Indicators Survey are fiscal year, Medicare Cost Report are prospective payment system year.
* Through second quarter of fiscal year 2000.

Source: MedPAC analysis of data from HCFA and the National Hospital Indicators Survey, which is sponsored by HCFA and MedPAC.

than that of other teaching and non-teaching facilities, despite relatively high PPS margins, reflecting in part the high burden of uncompensated care and other mission-related costs these hospitals carry. It may also reflect difficulty in competing in the private market, given their higher-than-average costs. In comparison, the total margin for other teaching hospitals fell from 6.1 percent in 1997 to 3.7 percent in 1999, and non-teaching hospital total margins fell from 6.3 percent to 3.6 percent over this period.

Since 1989, rural hospitals have consistently had higher total margins than urban hospitals, despite much lower PPS margins (Figure 5-13), chiefly due to higher private-payer payments relative to costs. Throughout the 1990s, private-payer payments to rural hospitals have consistently been above 134 percent of costs, even as rural hospital costs have increased. Margins for both urban and rural hospitals have followed the same pattern—they grew steadily through the 1990s, but began to fall in 1997 and fell steeply in 1998. In 1999 this pattern changed for the first time—rural hospital margins improved slightly to 4.9 percent, while urban hospital total margins declined to 2.5 percent. In addition to maintaining higher private-payer payments relative to costs, rural hospitals also reduced their skilled nursing and home health services to a greater degree than did their urban counterparts.

Early indicator for 2000 total margins Hospital total margins appear to have improved substantially in 2000. The National Hospital Indicators Survey (NHIS), conducted by the Lewin Group for AHA with funding from MedPAC and HCFA, shows a 5.5 percent margin for the first two quarters of fiscal year 2000 (Table 5-2). Because total margins are typically higher in the first half of a fiscal year, however, this figure is probably overstated. We have seasonally adjusted the 2000 results, which suggests that the 5.5 percent half-year margin corresponds to an annual margin of 5.1 percent. In comparison, the average margin for the 1990s was 4.7 percent.

Although the NHIS does not provide payer-level breakdowns, we know that no Medicare payment provisions implemented in fiscal year 2000 could be responsible for aggregate revenue increases exceeding aggregate cost increases. Most likely, the improved financial performance reflects:

- hospitals moving away from money-losing ventures, such as skilled nursing facilities, home health agencies, physician practices, and insurance subsidiaries; and
- hospitals negotiating larger payment increases with private payers. In late 1999 and through 2000, industry analysts suggest that hospitals have been successful in negotiating higher rates in the private sector (Moody's Investors Services, Inc. 2000, Jaklevic 2000, Standard and Poors 2000, Legg Mason 1999).

These preliminary findings for 2000 suggest that the poor financial performance of hospitals had perhaps reached its low point in 1999, and that the hospital industry has begun to return to earlier financial viability.

Updating operating and capital payments

The Commission develops recommendations each year for updates to operating and capital payment rates for PPS inpatient services. We present a recommendation for a combined operating and capital payment update for 2002. With the end of the transition to fully prospective capital payment, both operating and capital prospective payments will be made using standard federal rates adjusted for individual hospital circumstances. Separate operating and capital payments are a relic of the era of cost reimbursement, and MedPAC recommended last year that Congress implement a single, combined payment rate (MedPAC 2000a).

The Commission evaluates its update recommendation in light of its probable impact on beneficiary access to quality care and in light of the financial performance of the hospital industry. However, financial performance is never our primary consideration in setting the update.

The Commission's update recommendation

In developing its update recommendation, MedPAC uses a framework to consider individual factors that affect costs or payments (Table 5-3). The framework includes two sections.

The first section addresses factors that affect the appropriateness of the current year level of payments. It begins by applying a correction for past errors in forecasting the market basket used to set payments on a two-year lagged basis. It then phases in a segment of the Commission's multi-year unbundling adjustment. Next, it addresses the need to adjust for coding changes in the DRG-based case mix system and for complexity change within DRG patient categories. Finally, this part of the update framework considers the effect of Medicare policy changes on hospital's financial status.

The second section of the framework addresses factors affecting cost changes in the coming year. It first applies adjustments to reflect changes in input prices. We then identify new technologies that are expected to increase costs but are not reflected in the market baskets, and we require a modest improvement in hospital productivity to offset some of these costs. We thus calculate the scientific and technological advances adjustment by subtracting a standard for productivity growth from the estimated cost impact of new technologies. When applicable, we include adjustments to reflect one-time factors that increase costs.

The PPS operating update is set in law and the PPS capital update is set at the discretion of the Secretary of Health and Human Services. An appropriate combination of operating and capital updates will help ensure beneficiaries' access to safe and effective inpatient hospital care. Policymakers need to know the combination which meets this goal and is consistent with an analytically informed judgment about how much rates should increase each year. For fiscal year 2002, the operating update is currently set at 0.55 percent less than the increase in the operating market basket, which would result in a 2.45 percent increase in rates if the current market basket forecast holds. If the Secretary were to set the capital update at the rate of increase in the HCFA capital market basket, as was done last year, it would equal 0.8 percent. This would suggest a combined update of 2.3 percent in 2002.

MedPAC studied factors affecting the adequacy of payments in fiscal year 2001 and factors expected to affect hospital costs in fiscal year 2002. We concluded that there is no compelling reason to change current law setting an operating update for fiscal year 2002 of 0.55 percent below the rate of increase in the operating market basket. Our analysis indicates that an appropriate combined update would be between 1.5 and 3.0 percent if current forecasts hold (Table 5-3).

TABLE 5-3

Update framework for inpatient hospital payment rates, combining operating and capital payments, fiscal year 2002

Component	Percent
Factors affecting the current level of payments:	
Correction for FY 2000 market basket forecast error	0.7%
Unbundling of the payment unit	−2.0 to −1.0
Coding changes across service categories	0
Complexity changes within service categories	0
Medicare policy changes affecting financial status	0
Factors expected to affect provider costs next year:	
Forecast of input price inflation	2.8
Scientific and technological advances net of productivity growth and one-time factors	0 to 0.5
Sum of components	1.5 to 3.0 (MB −1.3 to MB + 0.2)

Note: FY (fiscal year), MB (combined market basket). For FY 2002, the combined market basket forecast is based on HCFA's operating market basket forecast (weighted 92 percent) and capital market basket forecast (weighted 8 percent). Applies only to services covered by Medicare's inpatient PPS.

Source: HCFA Office of the Actuary and MedPAC analysis.

RECOMMENDATION 5A

The inpatient PPS operating update of market basket minus 0.55 percent set in law for fiscal year 2002 will provide a reasonable level of payments.

The following sections document our quantification of the seven components of the update framework supporting this recommendation. In addition, we present a recommendation regarding HCFA's methods for collecting the data we use to analyze one of the components, the adjustment for DRG coding change.

Factors affecting the current level of payments

The first four components of the Commission's update framework relate to factors affecting the appropriateness of the current year level of payments.

Correction for previous forecast error

This component adjusts for any error in the market basket forecasts used to set payments in 2000. The value is determined by comparing the forecasts of the HCFA operating market basket (the PPS input price index) and capital market basket (the capital input price index) made two years ago with actual increases. A forecast of 2.9 percent was used for the operating update implemented in fiscal year 2000; the actual increase was 3.6 percent. The HCFA capital market basket was forecast to increase by 0.6 percent in 2000; it actually increased by 0.9 percent. This implies a combined HCFA forecast of 2.7 percent and an actual value of 3.4 percent. Thus, the fiscal year 2002 update is increased by 0.7 percent for forecast error.

Unbundling of the payment unit

It is likely that a substantial portion of the drop in Medicare length of stay discussed earlier has reduced cost growth for inpatient stays. However, this relative reduction in costs was accompanied by increased costs in other settings—such as skilled nursing facilities, rehabilitation hospitals and units, hospital outpatient departments, physicians' offices, and home health agencies—as care was shifted to those settings. Medicare must pay for care in other settings (by reimbursement of costs or prospective payment), at least partially offsetting the savings resulting from reduced length of stay in the acute inpatient setting.

Care for Medicare beneficiaries has shifted out of the inpatient setting in the last 10 years. Medicare length of stay has consistently fallen more rapidly than length of stay for other payers. This is consistent with the incentives facing hospitals under PPS and under the payment systems used by other payers. Medicare pays hospitals a prospectively determined amount per discharge, which encourages hospitals to shift costs to other settings because such shifts will not reduce inpatient payments. Other payers often pay on a discounted charge or flat per diem basis, methods that reduce payments to match cost reductions and therefore eliminate the incentive to shift costs. Although shifting costs may maintain, if not improve, quality of care for Medicare beneficiaries in other settings, it leads to inappropriately high payments for inpatient care, reducing resources available to pay for the other services.

The average length of stay of all hospital patients declined by 20.3 percent from 1989 through 1999. However, results from our National Hospital Indicators Survey suggest that the downward trend has stabilized. Because it appears that the decade long decline in length of stay may be ending, we did not alter the cumulative length-of-stay change we used for last year's unbundling adjustment in developing this year's adjustment. The effect of this length-of-stay decline on costs is less than proportionate, however, because some cost elements (such as those connected with surgery) are fixed, while days of care at the end of the stay have lower-than-average costs (ProPAC 1990, MedPAC 1999b). Based on a prior study of the relationship of length of stay and cost per case, we estimate that this 20 percent drop in length of stay led to about a 14 percent drop in aggregate costs per case (Ashby et al. 2000).

MedPAC has identified other indirect evidence suggesting a shift of care out of the inpatient setting. First, the use of post-acute care services expanded greatly after 1989 as Medicare length of stay declined. Second, length of stay fell most in those DRGs where use of post-acute care is the greatest. Finally, hospitals that operate hospital-based post-acute care services have seen the greatest drops in length of stay for inpatient acute care (MedPAC 1998a, MedPAC 1999b).

The Commission notes that not all of the length-of-stay decline is due to shifts of care out of the inpatient hospital setting. Some may be due to changes in technology and practice patterns that allow patients to undergo tests and procedures that require less acute recovery time, permitting discharge to home with relatively little follow-up care. Such developments represent productivity improvements that benefit both beneficiaries and hospitals. Medicare should not leave the impression that its payment decisions penalize such actions.

The preponderance of the indirect evidence suggests that most length-of-stay decline has been due to unbundling rather than productivity improvement. We estimate that cost reductions of 4 percent out of a total of 14 percent should not be considered to have resulted from unbundling, leaving a 10 percentage point unbundling reduction to be phased in.

ProPAC began to address the shift of care out of the inpatient setting in its update recommendation for fiscal year 1998. MedPAC continued this with its recommendations for 1999 and 2000. We also evaluated changes in length of stay in the recommendation for 2001, but the Commission decided to defer any negative adjustment in that update in light of evidence indicating financial stress in the hospital industry.

Starting with fiscal year 1998, we compare the actual update with that implied by all components of the update framework other than the unbundling adjustment. The difference between the two is the implied adjustment for

unbundling included in the actual updates (Table 5-4). Total implied adjustments were 6.1 percent for fiscal years 1998 through 2001.

The expanded transfer policy provides a partial payment for cases in which patients are discharged to select post-acute settings after a short length of stay (MedPAC 2000b). Our analysis estimates that as implemented, this policy has reduced total payments by 0.7 percent, thereby contributing to the response to unbundling. The implied adjustments for unbundling in the actual 1998 to 2001 updates, plus the reduction in payments due to the expanded transfer policy, sum to 6.8 percent. This is the total response to date (Table 5-4).

With a 10 percent cost reduction due to unbundling and a 6.8 percent payment adjustment to date, 3.2 percent remains for future adjustments. The Commission believes that completing the cumulative adjustment to account for the shift of care out of the inpatient setting remains important. Furthermore, we will adjust the 3.2 percent remaining amount upward if the drop in length of stay should continue.

Prior to the hiatus for fiscal year 2001, we recommended phasing in the negative adjustment for unbundling of the payment unit in annual increments of between 0.9 and 3.0 percent. It is appropriate at this time to continue phasing in the adjustment with a reduction in the update of −1 to −2 percent for fiscal year 2002.

Changes in case mix

Our two case-mix adjustments are intended to ensure that payments reflect the real resource requirements of patients. The complexity of cases treated in acute-care hospitals generally increases at least a small amount from year to year. Under Medicare, case complexity is measured by the CMI—the average DRG weight for all cases paid under the PPS. The CMI reflects the distribution of cases among DRGs; increases in the CMI reflect shifts in the distribution of cases toward more highly weighted DRGs, producing proportionate increases in Medicare PPS capital and operating payments.

An increase in the CMI is appropriate if CMI growth reflects real changes in patient resource requirements. However, changes in coding practices can increase or decrease the CMI without real increases in resource use. At the same time, an increase in the complexity of cases within a DRG can increase resource use without a commensurate rise in payments. When such changes occur, payments should be adjusted accordingly. The Commission's case-mix adjustments modify the next year's payment rates to account for the effects of this year's changes in coding practices and within-DRG case complexity.

CMI growth has decelerated sharply in the last several years, with actual declines of 0.5 percent for fiscal year 1998 and 0.4 percent for 1999. Based on preliminary data, HCFA analysts expect that fiscal year 2000 will show at least a modest further decline.

MedPAC updated research reported last year on the impact of hospital coding on the CMI using more complete 1999 data. Our previous research used information on at least 27,000 discharges in every year from 1996 through 1998 and 7,000 discharges in 1999. These records were reabstracted by a HCFA contractor that employed independent, impartial coders to assign DRG codes to cases, independent of codes assigned by hospitals. The new study uses information on approximately 30,000 discharges in 1999.

In 1996 and 1997, hospitals on average assigned slightly higher-weighted DRGs than appropriate to Medicare cases. In 1998 they shifted to more cautious coding, which contributed to slower CMI growth in the sample of cases. Our analysis indicates that coding change reduced CMI growth by 0.5 percent in 1998 (a practice that could be described as downcoding), possibly in response to federal scrutiny of DRG code assignments. Our new analysis indicates that, in 1999, coding changes alone had a negligible effect, increasing CMI growth by 0.1 percent. MedPAC (1998b) and ProPAC (1996) recommended negative adjustments when DRG coding change led to CMI increase (upcoding). In response to the evidence of downcoding in 1998, we recommended a positive adjustment of 0.5 percent for DRG coding change in the fiscal year 2001 update. In light of evidence that

TABLE 5-4

Implied adjustments for unbundling of the payment unit for inpatient services, fiscal years 1998–2001

Provision adjusting for unbundling	Commission update recommendation without unbundling adjustment	Actual update	Implied adjustment for unbundling
FY 1998 update	MB−0.4%	0	–2.3%
FY 1999 update	MB−0.8	MB−1.9%	–1.1
FY 2000 update	MB + 0.2	MB−1.8	–2.0
FY 2001 update	MB + 0.7	MB	–0.7
Expanded transfer policy	NA	NA	–0.7
Total—current law			–6.8

Note: Implied adjustment for unbundling = actual update−Commission update recommendation without unbundling adjustment.
FY (fiscal year), MB (operating market basket), NA (not applicable).
Current law refers to the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA). FY 2001 update per BIPA: Market basket−1.1 percent for the first half of the year, market basket + 1.1 percent for the second half of the year, averaging full market basket. FY 2001 applies composite market basket consistent with MedPAC's June 2000 recommendation to combine capital and operating payments.

Source: Balanced Budget Act of 1997, Benefits Improvement and Protection Act of 2000, and MedPAC analysis.

coding had no significant effect on CMI change in 1999 the Commission believes that the fiscal year 2002 update should neither be increased nor decreased for coding change.

In past years, MedPAC has included an adjustment for increased case complexity not captured by the DRG classification system. In our first three years (updates for fiscal years 1999, 2000, and 2001), we recommended adjustments for within-DRG case-complexity change of 0.0 to 0.2 percent. In its update recommendations for fiscal years 1996 and 1997, ProPAC recommended adjustments of 0.2 percent and 0.0 to 0.2 percent, respectively. The Commission recognizes that as the DRG classification system matures, it should account for more of the variation in costs by DRG assignment, leaving less within-DRG variation in case complexity and costliness. In light of this consideration and the low adjustments in four of the past five updates, MedPAC believes that the fiscal year 2002 update should neither be increased nor decreased due to within-DRG case complexity change.

RECOMMENDATION 5B

In collecting sample patient-level data, HCFA should seek to balance the goals of minimizing payment errors and furthering understanding of the effects of coding on case-mix change.

HCFA collects the data MedPAC used in this coding analysis to evaluate and monitor the Peer Review Organizations (PROs) with which it contracts to monitor quality and utilization. The data play an important role in HCFA's efforts to minimize errors in payments for inpatient care. Although the sampling plan used in fiscal year 2000 serves this important function well, it does not collect data for analyses of coding changes with adequate statistical efficiency. HCFA uses the same sample size for every state to ensure accurate estimates of PRO performance in even the smallest states. Samples proportional to the number of Medicare discharges in each state would allow for more accurate estimates for most states and for the nation as a whole. The Commission believes that the Secretary should develop a sampling plan that meets both needs for the data, recognizing that this may increase the overall size of the sample.

Hospital coding changes can have substantial effects on the distribution of payments among hospitals. Because HCFA and the Commission consider coding changes in making their annual update recommendations, coding changes may affect the aggregate level of payments as well. The Secretary should consider the benefit of comprehensive, ongoing analyses of coding changes using data of the sort HCFA currently collects. HCFA should consider reallocating and, if possible, adding to the resources devoted to this data collection endeavor.

Medicare policy changes affecting financial status

Several provisions of the BBA, the BBRA, and the BIPA are not reflected in the 1999 data on hospital financial status. Changes in teaching, DSH, and bad debt provisions reduced payments in 2000, but BIPA increases these payments in 2001 and 2002 compared to the BBA and the BBRA. A provision related to sole community hospital payment will also increase payments. It appears that legislated updates will match cost growth, and overall we believe that the net effects of the legislated changes will be small. There appears to be no need for an adjustment in this component for fiscal year 2002.

Factors affecting the level of provider costs next year

The last three components of the Commission's update framework relate to factors affecting how costs are expected to change in the coming year.

Forecast of input price inflation

The Commission develops its estimates of annual increases in hospital input prices using HCFA's market baskets for operating costs (inputs such as staff, medical supplies, and pharmaceuticals) and capital costs (which include depreciation, interest, and insurance). We combine these market baskets to estimate overall change in prices. Operating costs represent about 92 percent of total hospital costs and capital costs the remaining 8 percent.[14] We therefore calculate a combined market basket forecast weighting the operating forecast by 0.92 and the capital forecast by 0.08.

For fiscal year 2002, the HCFA operating market basket is forecast to increase by 3.0 percent and the HCFA capital market basket by 0.8 percent. The combined market basket is therefore estimated to increase by 2.8 percent.

Scientific and technological advances net of productivity growth and one-time factors

The Commission recommends an adjustment that combines an allowance for scientific and technological advances (S&TA), an increase for one-time factors expected to affect costs in fiscal year 2002, and the removal of the adjustment for fiscal year 2000 one-time factors. Each of these three components is discussed in a subsection below. This adjustment should be in the range of 0.5 to 1.0 percent. Adding a productivity offset of 0.5 percent then yields a net allowance for S&TA and one-time factors of 0.0 to 0.5 percent for fiscal year 2002.

The S&TA allowance is a future-oriented policy statement designed to account for emerging uses of technologies that enhance quality but increase costs. It represents MedPAC's best estimate of the incremental increase in costs for a given fiscal year resulting from the adoption of new technologies or new applications of existing technologies (beyond that automatically reflected in the payments hospitals receive). This allowance is intended to encourage facilities to appropriately adopt new technologies that will enhance the quality of patient care.

MedPAC believes that the costs associated with technological advances should be financed at least partly through improvements in hospital productivity.

14 Analysis of National Hospital Panel Survey data on total depreciation, total interest, and total expenses, fiscal years 1994–1998.

This tends to occur in other sectors of the economy as well. We offset our S&TA allowance with a fixed standard for expected productivity growth, and for the 2002 update, the Commission set that standard at 0.5 percent. We annually review anticipated changes in hospital technology to determine whether they include cost-increasing, quality-enhancing technological developments with aggregate costs that will exceed expected productivity improvements.

In addition to incurring costs by adopting technological innovations, hospitals may also incur significant costs for unusual, one-time events. In fiscal years 1999 and 2000, hospitals faced the costs of potential year 2000 (so-called Y2K) computer problems. In fiscal year 2002, they may face costs of major new regulatory requirements. The Commission believes Medicare should help hospitals deal with one-time costs when they are systematic and substantial and when incurring them will improve care for Medicare beneficiaries. We will exercise discretion in making this allowance when we judge factors to be sufficiently major and cost-increasing.

Costs associated with one-time events should not permanently increase inpatient base payment rates. We complete the adjustment by including an adjustment in future updates to remove the effect of one-time events such as costs of year 2000 computer problems.

Scientific and technological advances The S&TA considers only those new technologies that have progressed beyond the initial stage of use but are not yet fully diffused into the inpatient hospital setting. It does not include the costs of investigational technologies (because Medicare does not generally cover them) or fully diffused technologies (because these costs are reflected in the annual recalibration of the DRGs). The allowance does not attempt to identify all cost-increasing technologies, but focuses on the most significant ones from the perspective of cost and diffusion. An overview of the technologies that staff have identified is provided in Appendix A.

MedPAC has been concerned that advances in pharmaceutical technology offer improved treatment options for Medicare beneficiaries but may impose higher costs on hospitals. The impact of increased spending on drugs included in inpatient hospital costs in 2002 is uncertain. On the one hand, prescription pharmaceuticals account for only about 4 percent of PPS inpatient hospital expenses, and inflation in the price of existing drugs slowed to 2.5 percent in fiscal year 2000. This means that the weight for pharmaceuticals in the hospital market basket probably did not lose accuracy in the past year. On the other hand, however, Food and Drug Administration approval of new drugs has continued, with 27 new molecular entities approved in calendar year 2000, only slightly fewer than the 30 and 35 approved in 1998 and 1999, respectively (FDA 1999, FDA 2000, FDA 2001). MedPAC's analysis of expected changes in S&TA for fiscal year 2002 suggests that continued diffusion of new drugs will have at least a modest impact on hospital costs in fiscal year 2002, and we will expand our analysis of the effects of new drugs on hospital costs in the coming year.[15]

Productivity growth The Commission has not been able to develop a single measure of productivity that we believe captures all aspects of input usage, measures a constant output over time, and is not contaminated by unrelated factors. The Bureau of Labor Statistics (BLS) does not publish a productivity measure for the hospital industry or any other medical care service industry. Although it has produced estimates of labor productivity growth for 9 finance and service industries, the results vary widely—from 0.1 percent to 4.0 percent for 1987-1998 (BLS 2000b). Because no individual industry studied appears to be a good proxy for the hospital industry, we use the private nonfarm business sector as a standard for comparison.

The Commission believes that a measure of productivity growth in the general economy is an appropriate standard for the hospital industry. Multifactor productivity measures growth in output not accounted for by growth in labor and capital inputs. Growth in multifactor productivity in the nonfarm business sector of the economy is the most comprehensive measure of productivity growth for that sector. This measure of productivity grew at an annual rate of 1.3 percent from 1995 through 1998, somewhat higher than the rate of 0.7 percent from 1988 through 1998 (BLS 2000a). The Commission's productivity standard of 0.5 percent is consistent with the longer term rate of productivity growth.

One-time factors The costs incurred in complying with new laws and regulations differ from the costs of adopting new patient care technologies in two important respects. First, hospitals may only need to revise existing management practices to comply with new laws and regulations. Second, in many cases the portion of the hospital budget devoted to addressing one-time events may approach zero once the necessary changes are made. The adoption of new technological advancements typically results in a sustained increase in hospitals' operating and capital budgets.

The Commission has studied costs associated with implementation of final rules on coding, transactions, and privacy under the Health Insurance Portability and Accountability Act of 1996 (HIPAA). The Blue Cross Blue Shield Association and the American Hospital Association developed estimates of costs associated with the proposed HIPAA privacy rule (Robert E. Nolan 1999, First Consulting Group 2000). However, the Department of Health and

15 Recent research indicates that drug cost increases continue to be high and to account for a large part of overall health care cost increases through 1999, in large part due to new drugs and new uses for existing drugs (Center for Studying Health System Change 2000; Hogan et al. 2000). However, these findings pertain to costs of outpatient drugs which are not covered by Medicare. They do not provide direct evidence relating to the costs of drugs provided for PPS inpatient services. MedPAC is sponsoring research in the coming year on scientific and technological advances that will attempt to quantify the effects of pharmaceuticals, and other technological advances, on inpatient hospital costs.

Human Services (HHS) has prepared the only comprehensive analysis of both the administrative simplification and privacy rules in their final form. DHHS projected 10-year costs for hospitals to meet these rules of approximately $3 billion (HCFA 2000a, HCFA 2000b). However, it estimates that the administrative simplification rule will produce savings to the overall health care sector of $36.8 billion over the same period.

MedPAC estimates that 20 percent of projected total savings from the administrative simplification rule will accrue to hospitals based on their share of costs of the rule. Hospital savings are thus estimated at $7.4 billion, implying net savings to hospitals of $4.4 billion over 10 years. However, HHS notes that hospitals will incur substantial upfront costs. It estimates that 23 percent of the hospital costs of the privacy rule, $355 million, will be incurred in the first year. These estimates reflect forecasts and are highly uncertain. For both regulations combined they imply first-year costs for Medicare inpatient services of between 0.2 and 0.25 percent of total PPS operating and capital payments.

In light of the substantial upfront costs and the probability that costs will be realized before savings, the Commission has concluded that the HIPAA regulatory requirements should be reflected in the payment update for fiscal year 2002. We recommend that the update include a small increment for the share of first-year costs associated with Medicare inpatient care. However, the magnitude of costs and savings, as well as their timing, are highly uncertain. The Commission intends to revisit this adjustment in future years to adjust for any errors in the forecast of regulatory impacts and to include offsetting adjustments to reflect savings realized.

Completion of past adjustment for one-time events Costs associated with one-time events should not permanently increase inpatient base payment rates. The one-time factors adjustment includes an increase for the fiscal year in which costs are anticipated and an offset to remove this adjustment from the base payment rates for the following years.

In its fiscal year 2000 update, the Commission considered the costs of year 2000 (Y2K) computer improvements by increasing the S&TA allowance. The fiscal year 2000 adjustment was for nonrecurring costs, which the Commission believes should not continue to be reflected in payments for fiscal year 2002 and after. We recommend that the base inpatient payment rate for 2002 be reduced by 0.5 percent, which would offset the increase we recommended in the fiscal 2000 update for year 2000 costs.

Improving disproportionate share payment distribution methods

Medicare disproportionate share payments are distributed through a hospital-specific percentage add-on applied to the basic DRG payment rates. Consequently, a hospital's DSH payments are tied to its volume and mix of PPS cases. The add-on for each case is determined by a complex formula based on the hospital's share of low-income patients, which is the sum of two ratios—Medicaid patient days as a share of total patient days, and patient days for Medicare beneficiaries who receive Supplemental Security Income payments as a percentage of total Medicare patient days.

DSH payments grew rapidly between fiscal years 1989 and 1997, rising from $1.1 billion to $4.5 billion, where they have remained through 1999.[16] As noted earlier in the chapter, the BBA reduced DSH funding in annual increments totaling 5 percentage points, but much of this cutback was restored by the BBRA and the BIPA.

MedPAC has recommended comprehensive reform of the DSH adjustments in each of the last two years (MedPAC 1999b, MedPAC 2000a). The first time, we included a recommendation for the Secretary to collect the data needed to revise the DSH adjustment in accordance with MedPAC's plan. The Congress implemented that recommendation in the BBRA, directing the Secretary to collect data on uncompensated inpatient and outpatient care—including non-Medicare bad debt and charity care, as well as Medicaid and other indigent care charges—for cost periods beginning on or after October 1, 2001.

The BIPA includes a provision that partially implements MedPAC's DSH reform plan, increasing DSH payments for many rural hospitals. Although this was a useful first step, the Commission believes now more than ever that a more equitable and much simplified alternative is needed.

This section begins by reviewing the purpose of the DSH adjustment, and then describes the problems with the current system that prompted MedPAC to recommend changes. Next, we describe the recent BIPA change and estimate its impact on hospitals covered by Medicare's inpatient PPS. The section concludes by reiterating the key recommendation we made last year and explaining how it should dovetail with the BIPA change.

Purpose of the disproportionate share adjustment

The original justification for the DSH adjustment presumed that poor patients are more costly to treat, but ProPAC adopted an alternative objective that had evolved over time: to protect access to care for Medicare beneficiaries, additional funds should be provided to hospitals whose viability might be threatened by providing care to the poor. Although the financial pressure from treating low-income patients can include any extra costs incurred, the primary threats are underpayment or nonpayment. MedPAC data have shown that of the major payer groups, Medicaid payments are the lowest on average. Payments of local indigent

16 This discussion is confined to the DSH adjustment made on operating payments under PPS. There is also a DSH adjustment to capital payments, based on the same underlying measure of low-income share but with a different distribution formula and a much smaller amount of money.

care programs are lower than those of the major payer groups, and uninsured patients generate the least funding, even after accounting for local operating subsidies (also see Appendix Table B-15).

Problems with the current system

The Commission believes that policy changes are needed to ameliorate two key problems inherent in the existing DSH payment system. The first is that the current low-income share measure does not include care to all the poor; most notably, it omits uncompensated care. Instead, the measure relies on the share of resources devoted to treating Medicaid recipients to represent the low-income patient load for the entire nonelderly poor population. However, states have always had different eligibility requirements for Medicaid, and changes implemented under waivers in recent years have created even more inconsistency. As a result, state Medicaid programs cover widely differing proportions of the population below the federal poverty level. Moreover, previous MedPAC analysis has established that even within states, the hospitals with the largest uncompensated care burdens often do not have the largest Medicaid patient loads, and vice versa.

The second problem is that, because of concerns about specific groups of hospitals, the Congress has legislated 10 different DSH formulas. Each includes a threshold, or minimum value, for the low-income patient share needed to qualify for a payment adjustment, but these vary from 15 percent for most urban hospitals to 45 percent for many rural hospitals. Applying differing eligibility standards and payment rates has resulted in a highly complex program and raised questions about the equity of payments. In particular, current policy favors hospitals located in urban areas; before the BIPA, more than half of urban hospitals received DSH payments, compared with only about 15 percent of rural facilities. In rural areas, the payment add-on is somewhat higher for those qualified for special Medicare payments as sole community hospitals or rural referral centers.

These underlying issues have been exacerbated by two recent problems of legal or regulatory interpretation:[17]

- **State Children's Health Insurance Programs (SCHIPs).** Under the legislation enacting SCHIPs, states can increase health insurance coverage for low-income children by expanding Medicaid, establishing a new program separate from Medicaid, or implementing a combination of both. As of 1999, 18 states had expanded their Medicaid program, 17 states had created insurance programs separate from Medicaid, and 16 states had done some combination of the two. HCFA's policy has been to count SCHIP days in calculating a hospital's low-income share only if the SCHIP program is organized within Medicaid. HCFA's interpretation is consistent with the law, but the ruling will unintentionally penalize states that chose the separate program option, thus exacerbating the inequity inherent in the current distribution of DSH monies.

- **State general assistance programs.** A number of states have state-only funded indigent care programs known as "general assistance." In past years, Medicare's fiscal intermediaries counted general assistance days in calculating hospitals' low-income shares, at least partly because they were sometimes administratively indistinguishable from true Medicaid days. In 1999, however, HCFA clarified in a rulemaking that only patient days covered under the jointly funded (state/federal) Medicaid program can be counted in calculating a hospital's DSH payment. Once again, this interpretation is probably correct legally, but it creates additional inconsistency in the way low-income patients are treated among states in determining DSH payments.

The BIPA policy change

The BIPA has made progress in improving the equity of DSH payments by extending the eligibility threshold enjoyed by urban hospitals with 100 or more beds—a low-income share of 15 percent—to all hospitals. We estimate that this will make about 840 additional rural hospitals (40 percent of all rural facilities) and 230 more urban hospitals with fewer than 100 beds eligible to receive a DSH payment. However, the BIPA caps the DSH add-on that a rural or small urban hospital can receive at 5.25 percent, except for those rural hospitals already receiving higher payments as a result of their sole community or rural referral status. Some large urban facilities currently receive far higher adjustments.

The impact of this policy change, by hospital group, is shown in Table 5-5. By design, payments for the currently favored group—urban hospitals with more 100 or more beds—would not change. Total PPS payments would increase by an average of 1.7 percent for rural hospitals and 1.2 percent for urban hospitals with fewer than 100 beds. The largest increases would go to the rural hospitals that currently have the lowest Medicare margins—those with fewer than 100 beds that are not sole community hospitals or rural referral centers.

Continued need for reform

The BIPA significantly improved the equity of DSH payments between rural and urban hospitals and between large and small hospitals, but additional changes are still needed. Before the BIPA, DSH payments comprised 6.4 percent of urban hospital PPS payments, compared with 1.3 percent for rural hospitals. After the BIPA, we estimate that DSH payments will make up 6.5 percent and 2.6 percent of payments, respectively. Thus, the gap between urban

17 Our last discussion of DSH policy (MedPAC 2000a) documented a third legal problem—HCFA's interpretation of a legislative provision providing larger DSH payments for hospitals whose uncompensated care comprised at least 30 percent of total patient revenue had been challenged in court. If the challenge had been successful, it could have dramatically increased the number of hospitals qualifying under this criterion in a way that would worsen the current inconsistency in DSH payments. However, the D.C. Court of Appeals has since upheld HCFA's interpretation of the law.

TABLE 5-5

Effect of disproportionate share policy change on Medicare inpatient payments, by hospital group

Hospital group	DSH payments as a percent of total payments: Current law	DSH payments as a percent of total payments: Per the BIPA	Change in total payments
All hospitals	5.8%	6.0%	0.3%
Urban	6.4	6.5	0.1
Rural	1.3	3.1	1.7
Urban 100+ beds	6.7	6.7	0.0
Urban 1-99 beds	0.9	2.1	1.2
Sole community	1.5	2.3	0.8
Rural referral	2.0	3.6	1.7
Small rural Medicare-dependent	0.3	2.0	1.6
Other rural 100-499 beds	1.2	3.2	2.2
Other rural 1-99 beds	0.4	2.7	2.3

Note: Policy change legislated in the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA). DSH (disproportionate share hospital).
Change in total payments equals BIPA payments minus current law payments, except due to rounding.

Source: MedPAC analysis of Impact File data from HCFA.

and rural hospitals only narrowed from 5 to 4 percentage points. DSH payments as a proportion of total Medicare payments need not be exactly the same between these two broad groups of hospitals, because the distribution of low-income shares differs somewhat. But additional progress can and should be made in rationalizing the distribution of payments, both between urban and rural hospitals and among individual hospitals.

RECOMMENDATION 5C

Although the Benefits Improvement and Protection Act of 2000 improved the equity of the hospital disproportionate share adjustment, Congress still needs to reform this adjustment by:

- **including the costs of all poor patients in calculating low-income shares used to distribute disproportionate share payments, and**
- **using the same formula to distribute payments to all hospitals covered by prospective payment.**

The BIPA provision makes partial progress in meeting one of the two parts of this recommendation. As the two parts are discussed in more detail below, we will clarify how the DSH payment system should extend the BIPA change.

Including the costs of all poor patients in calculating low-income shares

The measure of low-income patient share should include poor Medicare patients and patients covered by any indigent care program, as well as those who receive uncompensated care. Implementing this change will ensure that DSH payments go to the hospitals most needing financial assistance and that the size of the payment add-ons will be proportionate to that need. Improved targeting is equally necessary in rural and urban areas.

Under MedPAC's approach, low-income Medicare patients would continue to be identified by their eligibility for SSI payments. Indigent care programs would include Medicaid and other programs sponsored by city, county, or state governments. All other low-income patients would be represented by uncompensated care (both charity care and bad debts), reflecting the unpaid bills of uninsured patients as well as deductibles and co-payments that privately insured individuals fail to pay.

Adopting MedPAC's approach would also solve the problems presented by SCHIPs and general assistance programs. Our approach would produce a more equitable allocation of payments among states by including all SCHIP patient days, such that it would not matter whether a state chose the Medicaid or the separate program approach. Similarly, because MedPAC's approach would include all indigent care programs, it would no longer matter whether patient days emanated from a jointly funded or a state-only program. Moreover, because our methodology would likely be implemented on a budget-neutral basis, including these programs would not increase overall DSH spending.

Using the same formula to distribute DSH payments to all hospitals

Distributing DSH payments in a consistent manner to all hospitals would help protect access to care for all Medicare beneficiaries, regardless of the size or location of the hospitals they use. BIPA made an important first step in this regard by equalizing the eligibility criterion for all hospitals, but different maximum rates between rural and urban hospitals are not appropriate under a policy based on ensuring access to care. Some of the formula differences in the current system resulted from attempts to indirectly alleviate deficiencies in the low-income share measure, which should not be necessary under MedPAC's proposal. Generally, equal treatment can only be achieved by having a single payment formula that applies to all hospitals.

MedPAC offers three suggestions to guide the development of a uniform distribution formula. First, it is best to avoid creating a payment "notch" at the threshold, as found in each formula under current policy. As an example, an urban hospital with at least 100 beds receives a 2.5

percent add-on to its base PPS payment if its low-income patient share is 15 percent or more, but gets nothing if its share is 14.9 percent. This problem can easily be avoided by making the per case adjustment proportional to the difference between the hospital's low-income share and the threshold. In this way, a hospital just above the threshold would receive only a minimal increment above its base payment, with the percentage add-on rising in smooth progression as low-income share increases.

Second, MedPAC believes that the threshold should be set at the level that would allow about 60 percent of hospitals to receive a DSH payment. A threshold in this vicinity would concentrate payments among hospitals providing the greatest proportion of care to the poor, while moderating the disruption caused by a massive redistribution of payments. The broader definition of low-income patient share proposed by MedPAC shifts DSH payments to public hospitals because they tend to have the greatest uncompensated care levels. Of primary interest is protecting private hospitals with mid-level low-income shares that provide uncompensated care but receive little or no direct government funding. Our simulations show that allowing a larger proportion of hospitals to receive a DSH payment than under current policy best balances the needs of these two groups.

Our third suggestion is to establish a hospital-specific cap on DSH payments expressed as a percent of a hospital's *total patient care revenue*, rather than as a percent of its base PPS inpatient payment as is specified by the BIPA. A given percentage add-on to base PPS payments will have a substantially different impact depending on hospitals' Medicare penetration. The hospitals that would likely have the largest low-income shares under MedPAC's definition are large, inner-city public hospitals. These institutions typically have small Medicare penetration and thus are in the greatest need of a high DSH add-on. HCFA could set the ceiling for DSH payments as a proportion of total patient care revenue based on what a number of these public hospitals currently receive. That ceiling, applied to all hospitals, would prevent windfall-level DSH payments to hospitals with Medicare penetration at the high end of the scale.

Improving the equity of geographic reclassification for urban hospitals

Many of Medicare's prospective payment systems rely on the hospital wage index to adjust national average payment rates to reflect local price levels for labor in 374 labor market areas. Because of weaknesses in the definition of labor markets, however, the Congress has authorized a process known as geographic reclassification to grant the higher wage index of an adjacent market area to qualifying hospitals. The problem addressed in this section is that rural hospitals that are not reclassified are protected from reclassifications reducing their wage indexes, while urban hospitals do not have such protection.

The section begins by describing the hospital wage index system. Then the criteria and process for granting geographic reclassification are reviewed, followed by discussion of the inconsistent rules that HCFA follows in recomputing area wage indexes after hospital reclassifications are approved. The last section of the paper offers a recommendation to remedy this problem.

The hospital wage index system

A wage index is constructed for each of the 325 metropolitan statistical areas (MSAs), and for the combined rural areas of each state. It modifies the labor portion of the base payment rate, which is currently 71 percent. Each area's wage index is constructed as a ratio of the average hourly wage expense for all hospitals located in the area to the national average hourly wage.

The wage index system has a fundamental problem of inadequate labor market definitions. By treating all rural areas in a state as if they were in a single labor market and treating adjacent urban and rural facilities as if they were in different markets, the wage index tends to underestimate the market wage levels of communities near larger urban centers. Although this downward bias has been discussed most frequently for rural hospitals located near urban areas, it may also affect urban hospitals that are adjacent to larger urban areas.

In addition to inadequately defined labor markets, the wage index reflects differences in the mix of occupations providers use in their workforces in addition to differences in average wage levels. This tends to overstate the index values of communities dominated by tertiary care facilities providing sophisticated services and to understate those where hospitals provide more basic services.

As discussed in more detail in Chapter 4, a promising option for solving the bias resulting from differences in mix of employees is to adjust the wage index for occupational mix. To implement this approach, HCFA would have to collect wage and hours data by occupation category from the hospitals in each labor market. The process of collecting data and developing a revised system would probably take at least three years. If and when occupational mix data do become available, it may be possible to simultaneously implement a more sophisticated system of defining labor markets. During the intervening three or more years, however, we will probably be unable to improve the definition of labor markets. That means that geographic reclassification is essentially the only option for offsetting some of the downward bias in wage index values for hospitals located near enough to a higher-wage area that they must compete with that area for labor.

The criteria and process of geographic reclassification

Any hospital covered by the PPS can apply to the Medicare Geographic Classification Review Board to be reclassified to an adjacent area with a higher wage index. Individual hospitals or all hospitals in a county as a group may apply. Although not addressed here, hospitals can also apply for reclassification to receive the higher base payment amount in an adjacent large urban area. Generally, hospitals must meet three criteria to be approved for wage index reclassification:

- they must be less than 15 miles from the border of the adjacent area;
- their average hourly wage must be more than 106 percent of the average in their actual market; and
- their average hourly wage must be at least 84 percent of the average in the adjacent area.The first and third of these criteria are waived for hospitals that qualify for two special payment provisions Medicare maintains for rural hospitals: the sole community hospital and rural referral center programs.

In the past, hospitals had to reapply for reclassification each year, but the BIPA authorizes HCFA to approve reclassification for a three-year period beginning in fiscal year 2001.

Inconsistent rules for recomputing wage index values after reclassifications

Reclassification was originally conceived, in 1989, as a program to help rural hospitals bordering urban areas. For fiscal year 2000, 408 rural hospitals have been reassigned. But urban hospitals can also apply, and 83 such facilities have been reclassified for fiscal year 2000.

When a rural hospital is reclassified, its wage level is typically lower than the average wage of the area to which it is reassigned. But the hospitals in the receiving area are protected to a large extent, as the decline in their wage index resulting from incoming hospitals is limited to 1 percent. Similarly, the average wage of the area in which a reclassified rural hospital is actually located will necessarily go down (since a hospital must have above-average wages to qualify), but rural hospitals have complete protection from this change. Their wage indexes are computed as if no hospitals had been reclassified. All reclassifications must be implemented on a budget-neutral basis, but the reduction in base payment rate for rural hospitals in 2001 was only 0.5 percent. Thus, some rural hospitals gain substantially from reclassification and those that are not reclassified are limited to only small losses.

For urban hospitals, the dampening effect of reclassified hospitals on the wage indexes of the areas to which they are reassigned is limited to 1 percent, the same as for rural hospitals. But non-reclassified urban hospitals do not have the same protection as their rural counterparts. Their wage indexes are recomputed to exclude the above-average wages of hospitals that have been reclassified out of their area, with the size of the reduction limited only by the constraint that an urban area's wage index cannot be lower than the statewide rural average. Thus, while some urban hospitals gain significantly from being reclassified, others can lose substantial amounts of payment. In addition to the drop in their wage index of up to 1 percent from incoming rural reclassifications and a small percent reduction in their base payment rate from the budget neutrality factor, they may face a larger reduction in their wage index from outgoing reclassifications.

In response to the prospect of having their Medicare payments reduced by one or more neighboring hospitals reclassifying out of their area, hospitals in several MSAs have organized to pay qualifying hospitals not to apply. The 22 hospitals in Nassau and Suffolk counties that do not qualify for reclassification to New York City, for example, annually split the cost of giving the 3 hospitals that do qualify the estimated amount of additional payment they would receive (Sullivan 2000). Each non-reclassified hospital's proportionate share of the bill is far less than the loss in payments it would incur if the 3 high-wage hospitals did reclassify and the Nassau-Suffolk wage index was recomputed. Although clearly not envisioned as part of the geographic reclassification program, HCFA considers this a private transaction in which Medicare should not become involved because the plan does not increase overall Medicare outlays.

RECOMMENDATION 5D

The Congress should protect urban hospitals from the adverse effect of nearby hospitals being reclassified to areas with higher wage indexes by computing each area's wage index as if none of the hospitals located in the area had been reassigned.

In addition to making the rules governing geographic reclassification consistent between urban and rural areas and eliminating the need for private transactions to head off the need for reclassification, we believe this approach will provide the most accurate distribution of payments across all urban areas. Because a reclassified hospital is presumed to compete for labor with hospitals in the market to which it is reassigned, its data should be included in computing that area's wage index. But the hospitals in the urban area where a reclassified hospital is actually located also must compete with it for labor, so the reassigned hospital's data should be included in computing this wage index as well.

We believe that this policy will raise the wage index values of 24 urban areas. The largest impact would be in Newark, NJ, where the wage index is currently reduced by nearly 8 percent due to hospitals being reclassified to either New York City or Bergen County, NJ. Other significantly affected areas are Vallejo/Napa outside San Francisco, Allentown outside Philadelphia, and Dayton near Columbus and Cincinnati.

The downside of the proposed policy would be its effect on the budget neutrality factor. But because only 7 percent of the urban areas and none of the rural areas would be affected, the increase in the budget neutrality factor would be quite small.

HCFA appears to have the authority to make this change through regulation. However, because the protection for non-reclassified rural hospitals was enacted legislatively and Congress has not legislated such protection for urban hospitals, HCFA has thus far been reluctant to make the change itself. ■

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